

FCC Part 15.247
RSS-247, ISSUE 4, July 2025
RSS-GEN, ISSUE 5, February 2021 Amendment 2
TEST REPORT

For

Ultra Edge Technology Co., Ltd.

6F., No. 147, Sec. 2, Nangang Rd., Nangang Dist., Taipei City, Taiwan

FCC ID: 2BXRA-UT-FND-030000
IC: 35744-UTFND030000

Report Type:
Original Report

Product Type:
UTFind Tag

Report Producer : Jojo Lu

Report Number : RLK260326095RF01

Report Date : 2026/07/07

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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RLK260326095	RLK260326095RF01	2026/07/07	Original Report	Jojo Lu

TABLE OF CONTENTS

1	General Information	5
1.1	Product Description for Equipment under Test (EUT)	5
1.2	Objective	6
1.3	Test Methodology.....	6
1.4	Statement of Compliance	6
1.5	Measurement Uncertainty	7
1.6	Environmental Conditions.....	7
1.7	Test Facility.....	7
2	System Test Configuration.....	8
2.1	Description of Test Configuration.....	8
2.2	EUT Exercise Software	8
2.3	Test Mode.....	8
2.4	Support Equipment List and Details.....	8
2.5	External Cable List and Details.....	8
2.6	Block Diagram of Test Setup	9
2.7	Duty Cycle.....	10
3	Summary of Test Results.....	11
4	Test Equipment List and Details	12
5	FCC §15.203 & RSS-GEN §6.8 – Antenna Requirements	14
5.1	Applicable Standard	14
5.2	Antenna List and Details	15
6	FCC §15.207(a) & RSS-GEN §8.8– AC Line Conducted Emissions.....	16
6.1	Applicable Standard	16
6.2	EUT Setup	17
6.3	EMI Test Receiver Setup	17
6.4	Test Procedure.....	17
6.5	Factor & Margin Calculation	17
6.6	Test Results	18
7	FCC §15.209, §15.205 , §15.247(d) & RSS-GEN §8.9, §8.10– Spurious Emissions	19
7.1	Applicable Standard	19
7.2	EUT Setup	22
7.3	EMI Test Receiver & Spectrum Analyzer Setup.....	23
7.4	Test Procedure.....	23
7.5	Factor & Over Limit Calculation	23
7.6	Test Results	24
8	FCC §15.247(a)(2) & RSS-247 §6.3.1 (a), RSS-GEN §6.7 – 6 dB Emission	
	Bandwidth & Occupied Bandwidth.....	35
8.1	Applicable Standard	35
8.2	Test Procedure.....	35
8.3	Test Results	37
9	FCC §15.247(b) & RSS-247 §6.3.2 – Maximum Output Power	40
9.1	Applicable Standard	40
9.2	Test Procedure.....	41
9.3	Test Results	42

10 FCC §15.247(d) & RSS-247 §6.6 – 100 kHz Bandwidth of Frequency Band Edge 43

10.1	Applicable Standard	43
10.2	Test Procedure.....	43
10.3	Test Results	44

11 FCC §15.247(e) & RSS-247 §6.3.1(b) – Power Spectral Density 45

11.1	Applicable Standard	45
11.2	Test Procedure.....	45
11.3	Test Results	46

1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	Ultra Edge Technology Co., Ltd.
	6F., No. 147, Sec. 2, Nangang Rd., Nangang Dist., Taipei City, Taiwan
Manufacturer	Ultra Edge Technology Co., Ltd.
	6F., No. 147, Sec. 2, Nangang Rd., Nangang Dist., Taipei City, Taiwan
Brand(Trade) Name	Ultra Edge Technology Co., Ltd.
Product (Equipment)	UTFind Tag
Main Model Name	UT-FND-030000
Series Model Name	N/A
Model Discrepancy	N/A
HVIN	UT-FND-030000
Frequency Range	BLE Mode: 2402 ~ 2480 MHz
Number of Channels	40 Channel
Maximum Conducted Peak Output Power	BLE 1M: -8.46 dBm (0.00014W) BLE 2M: -8.75 dBm (0.00013W)
Modulation Technique	GFSK
Power Operation (Voltage Range)	☐ AC 120V/60Hz ☐ Adapter ☐ By AC Power Cord ☐ PoE
	☒ DC Type 3V ☒ Battery ☐ DC Power Supply ☐ External from USB Cable ☐ External DC Adapter
	☐ 3.3Vdc
Received Date	2026/04/01
Date of Test	2026/4/8~2026/4/20

**All measurement and test data in this report was gathered from production sample serial number: RLK260326095-01 (Assigned by BACL, Linkou Laboratory).*

1.2 Objective

This report is prepared on behalf of **Ultra Edge Technology Co., Ltd.** in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communication Commission's rules and RSS-247, Issue 4, July 2025, RSS-Gen, Issue 5, February 2021 Amendment 2 of the Innovation, Science and Economic Development Canada.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

KDB 558074 D01 DTS Meas Guidance v05r02 and RSS-247, Issue 4, July 2025, RSS-Gen, Issue 5, February 2021 Amendment 2 of the Innovation, Science and Economic Development Canada.

1.4 Statement of Compliance

Decision Rule: No, (The test results do not include MU judgment)

1. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory).
2. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
3. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
4. The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.
5. Bay Area Compliance Laboratories Corp. (Linkou Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.5 Measurement Uncertainty

Parameter		Uncertainty
AC Mains		±3.01 (dB)
RF output power, conducted		±1.75 (dB)
Occupied Bandwidth		±1.97 (%)
Unwanted Emissions, conducted		±2.57 (dB)
Power Spectral Density, conducted		±1.88 (dB)
Duty Cycle		±0.22 (ms)
Temperature		±1.73 (°C)
Humidity		±0.92 (%)
Emissions, radiated	9kHz~30MHz	±3.15 (dB)
	30 MHz~1GHz	±3.42 (dB)
	1 GHz~18 GHz	±5.12 (dB)
	18 GHz~40 GHz	±4.43 (dB)

Note: The extended uncertainty given in this report is obtained by multiplying the combined standard uncertainty by the coverage factor k for a 95% confidence interval. Unless otherwise required by the applicant or product regulations, the decision rule in this report does not consider measurement uncertainty.

1.6 Environmental Conditions

Test Site	Test Date	Temperature (°C)	Relative Humidity (%)	Test Engineer
AC Line Conducted Emissions	N/A	N/A	N/A	N/A
Radiation Spurious Emissions	04/08~04/13	21.5~24.5	45~58	Eden/Derek
Conducted Spurious Emissions	04/20	21.1	52	Alan
6 dB Emission Bandwidth & Occupied Bandwidth	04/20	21.1	52	Alan
Maximum Output Power	04/20	21.1	52	Alan
100 kHz Bandwidth of Frequency Band Edge	04/20	21.1	52	Alan
Power Spectral Density	04/20	21.1	52	Alan
Duty Cycle	04/20	21.1	52	Alan

1.7 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Linkou Laboratory) to collect test data is located on

☒ No.6, Wende 2Rd., Guishan Dist., Taoyuan City 33382, Taiwan (R.O.C.).

Bay Area Compliance Laboratories Corp. (Linkou Laboratory) is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3546) and the FCC designation No.TW3546 under the Mutual Recognition Agreement (MRA) in FCC Test.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: TW3546.

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

2 System Test Configuration

2.1 Description of Test Configuration

For BLE mode, there are totally 40 channels:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

For BLE Modes were tested with channel 0, 19 and 39.

The system was configured for testing in engineering mode, which was provided by manufacturer.

2.2 EUT Exercise Software

The test software was used “Direct Test Mode V2.5.3”

Test Frequency		Low	Mid	High
Power Level Setting	BLE 1M	0	0	0
	BLE 2M	0	0	0

2.3 Test Mode

Mode 1: Full System (model: UT-FND-030000) for all test item.

2.4 Support Equipment List and Details

No.	Description	Manufacturer	Model
1	Test fixture	Ultra Edge	CP2102
2	Notebook	DELL	E6410
3	Battery*2	Panasonic	CR2032

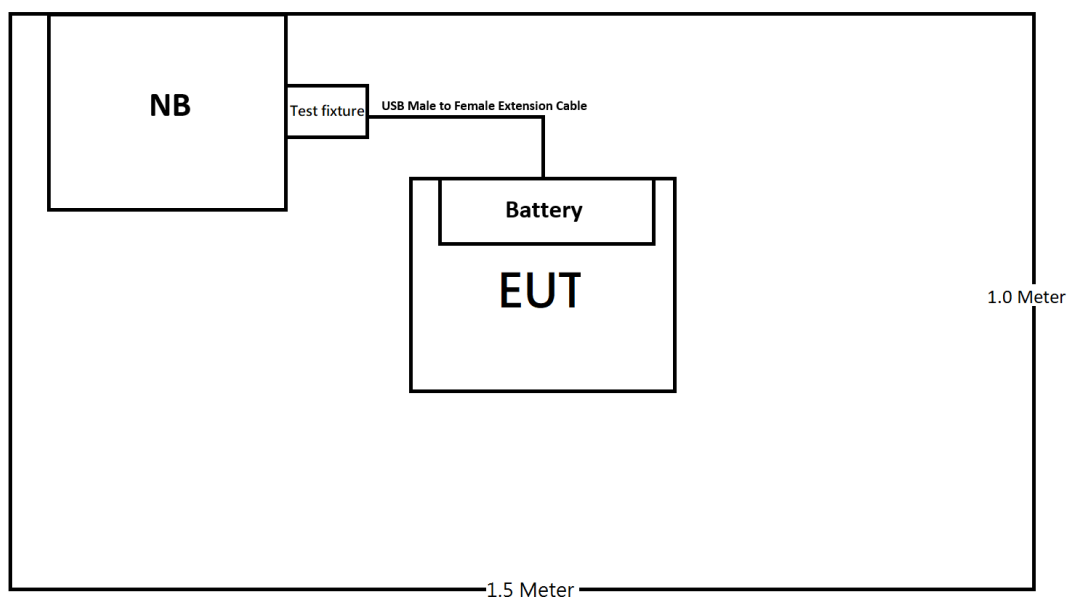
2.5 External Cable List and Details

No.	Description	Manufacturer	Model
1	USB Male to Female Extension Cable	BACL	1.2m

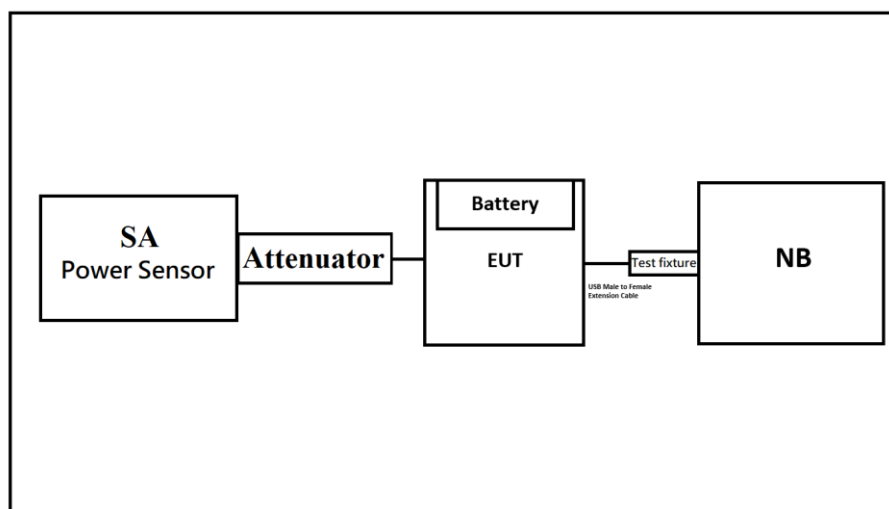
2.6 Block Diagram of Test Setup

See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:



Conducted:

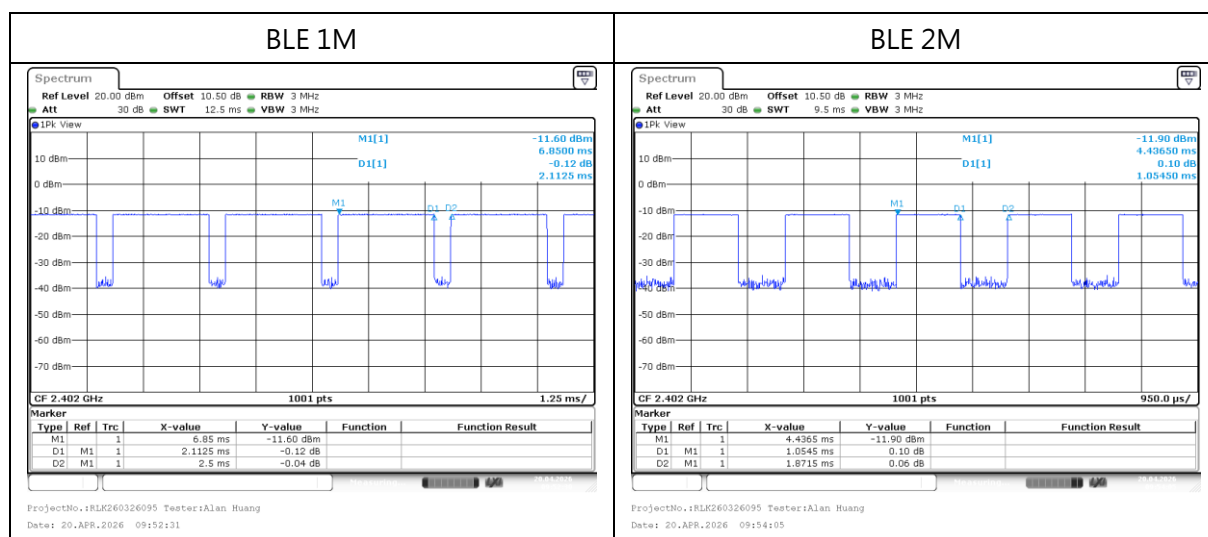


2.7 Duty Cycle

Radio Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T VBW Setting (kHz)
BLE 1M	2.11	2.50	85	0.71	0.5
BLE 2M	1.05	1.87	56	2.52	1.0

Note: Duty Cycle Correction Factor = $10 \cdot \log(1/\text{duty cycle})$

Please refer to the following plots.



3 Summary of Test Results

Rules	Description of Test	Results
FCC §15.203 RSS-Gen §6.8	Antenna Requirement	Compliance
FCC §15.207(a) RSS-Gen §8.8	AC Line Conducted Emissions	Not applicable
FCC §15.205, §15.209, §15.247(d) RSS-247 §6.6 RSS-Gen §8.9 RSS-Gen §8.10	Spurious Emissions	Compliance
FCC §15.247(a)(2) RSS-247 §6.3.1(a) RSS-Gen §6.7	6 dB Emission Bandwidth & Occupied Bandwidth	Compliance
FCC §15.247(b)(3) RSS-247 §6.3.2	Maximum Peak Output Power	Compliance
FCC §15.247(d) RSS-247 §6.6	100 kHz Bandwidth of Frequency Band Edge	Compliance
FCC §15.247(e) RSS-247 §6.3.1(b)	Power Spectral Density	Compliance

Not applicable: Device only supports battery.

4 Test Equipment List and Details

For 9kHz-1GHz and 18GHz-40GHz

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated 3M Room (966-B)					
Bilog Antenna & 6 dB Attenuator	SUNOL SCIENCES & EMCI	JB3 & N-6-06	A071318 & AT-N0670	2025/08/14	2026/08/14
Active Loop Antenna	ETS-Lindgren	6502	0003-5796	2026/03/30	2027/03/30
Horn Antenna	GLOBAL	1313-6-0240G	5112411	2025/11/06	2026/11/06
18-40GHz Preamplifier	GLOBAL	1313-A1840	5031371	2025/04/28	2026/04/28
30M-18GHz Preamplifier	A.H. Systems	PAM-0118P	479	2025/09/05	2026/09/05
ESR EMI Test Receiver	Rohde & Schwarz	ESR3	102447	2025/12/10	2026/12/10
Spectrum Analyzer	Rohde & Schwarz	FSV40	101456	2025/06/05	2026/06/05
Microflex Cable (1m)	EMCI	EMCI02-KM-KM-1000	180524	2025/08/01	2026/08/01
Microflex Cable (2m)	EMCI	EMCI06-SM-SM-2000	180516	2025/08/01	2026/08/01
Microflex Cable (8m)	UTIFLEX	UFA210A-1-3149-300300	MFR 64639 232490-002	2025/08/01	2026/08/01
Software	AUDIX	E3 V9	E3LK-02	N.C.R	N.C.R

For 1GHz-18GHz

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated 3M Room (966-C)					
Broadband Horn Antenna	Astro Antenna Ltd	AHA-118S	3011	2025/12/17	2026/12/17
1-18GHz Preamplifier	GLOBAL	1313-A0118G	5091032	2025/12/03	2026/12/03
Spectrum Analyzer	Rohde & Schwarz	FSV40	101457	2025/09/02	2026/09/02
Band Reject Filters (2.4G)	Micro-Tronics	BRM50702	G613	2026/04/30	2027/04/30
Microflex Cable (2m)	Micro-coax	UFA210B-0-0720-300300	99G1475	2025/09/12	2026/09/12
Microflex Cable (3m)	EMCI	EMC106-SM-SM-3000	180518	2025/09/12	2026/09/12

Microflex Cable (8m)	EMCI	EMC104-3.5M-3.5M-10000	221113	2025/09/12	2026/09/12
Software	AUDIX	E3 V9	E3LK-02	N.C.R	N.C.R

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Room					
Cable	MTJ	MT40S	620620-MT40S-100	2026/01/05	2027/01/05
Signal and Spectrum Analyzer (with B21)	Rohde & Schwarz	FSV40	101938	2025/12/03	2026/12/03
Real-Time Peak Power Sensor	Boonton	RTP5006	11037	2025/05/16	2026/05/16
10dB Attenuator	MTJ Cooperation	MTJ604-10	4	2026/04/07	2027/04/07

***Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements

5 FCC §15.203 & RSS-GEN §6.8 – Antenna Requirements

5.1 Applicable Standard

According to § 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.

According to 47 CFR §15.247(b)(4), if transmitting antennas with directional gain greater than 6 dBi are used, the conducted output power shall be reduced by the amount in dB that the antenna gain exceeds 6 dBi.

According to RSS-Gen 6.8:

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

5.2 Antenna List and Details

Manufacturer	Model	Antenna Type	Antenna Gain	Impedance
Zhuhai Jieli Technology Co., Ltd.	2.4G ANT	PCB Antenna	-0.59 dBi	50 Ω

Note :

1. For further details, please refer to the antenna specifications.
2. Unit uses a unique coupling to the intentional radiator.

Result: Compliance

6 FCC §15.207(a) & RSS-GEN §8.8– AC Line Conducted Emissions

6.1 Applicable Standard

According to §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

According to RSS-GEN §8.8

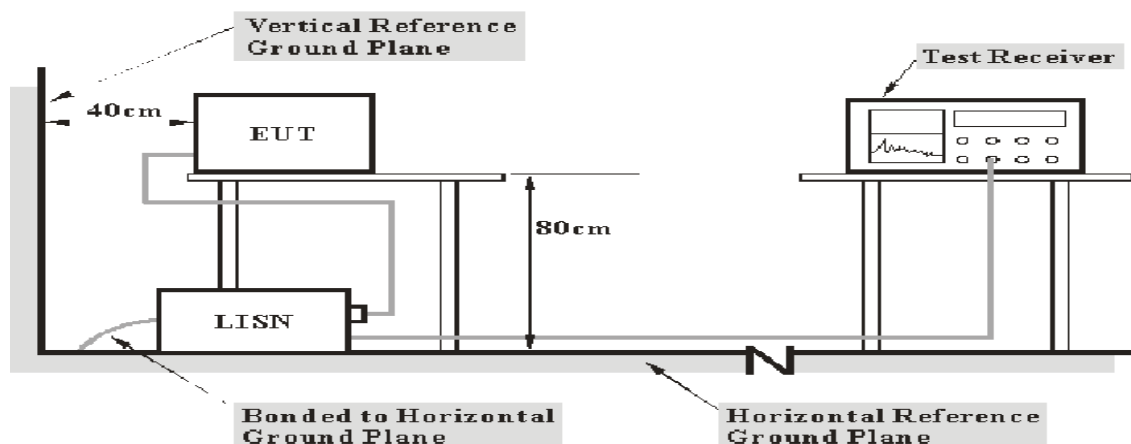
Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in table 4, as measured using a 50 μ H / 50 Ω line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.

For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in table 4 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56 ^{Note}	56 to 46 ^{Note}
0.5-5	56	46
5-30	60	50

Note : Decreases with the logarithm of the frequency.

6.2 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 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024 measurement procedure. The specification used was with the FCC Part 15.207 limits and RSS-GEN limits.

6.3 EMI Test Receiver Setup

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

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

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

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

6.5 Factor & Margin Calculation

The factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

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 Over Limit calculation is as follows:

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

6.6 Test Results

The subject sample is only employing battery power for operation. Therefore, this test is not applicable.

7 FCC §15.209, §15.205 , §15.247(d) & RSS-GEN §8.9, §8.10– Spurious Emissions

7.1 Applicable Standard

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1MHz.

As per RSS-Gen 8.10,

Restricted frequency bands, identified in table 7, are designated primarily for safety-of-life services (distress calling and certain aeronautical activities), certain satellite downlinks, radio astronomy and some government uses. Except where otherwise indicated, the following conditions related to the restricted frequency bands apply:

(a)The transmit frequency, including fundamental components of modulation, of licence-exempt radio apparatus shall not fall within the restricted frequency bands listed in table 7 except for apparatus compliant with RSS-287, Emergency Position Indicating Radio Beacons (EPIRB), Emergency Locator Transmitters (ELT), Personal Locator Beacons (PLB), and Maritime Survivor Locator Devices (MSLD).

(b)Unwanted emissions that fall into restricted frequency bands listed in table 7 shall comply with the limits specified in table 5 and table 6.

(c)Unwanted emissions that do not fall within the restricted frequency bands listed in table 7 shall comply either with the limits specified in the applicable RSS or with those specified in table 5 and table 6.

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	608 – 614	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	960 – 1240	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	1300 – 1427	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1435 – 1626.5	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1645.5 – 1646.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1660 – 1710	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1718.8 – 1722.2	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	2200 – 2300	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2310 – 2390	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2483.5 – 2500	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2690 – 2900	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	3260 – 3267	22.01 – 23.12
8.41425 – 8.41475	162.0125 – 167.17	3332 – 3339	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3345.8 – 3358	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3600 – 4400	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4		Above 38.6
13.36 – 13.41	399.9 – 410		

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (micro volts/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

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

As per RSS-GEN §8.9: Except where otherwise indicated in the applicable RSS, radiated emissions shall comply with the field strength limits shown in table 5 and table 6. Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

Table 5 – General field strength limits at frequencies above 30 MHz

Frequency (MHz)	Field Strength (µV/m at 3 m)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

Table 6 – General field strength limits at frequencies below 30 MHz

Frequency (MHz)	Field Strength (H-Field) (µA/m)	Measurement distance (m)
9 - 490 kHz ^{Note 1}	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

Note 2: The limit was added 51.5dB to convert the limit from dBuA/m to dBuV/m.

According to ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, section 5.3.3

Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field, and the emissions to be measured can be detected by the measurement equipment (see 4.3.4).

Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. Measurements from 18 GHz to 40 GHz are typically made at distances significantly less than 3 m from the EUT. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade of distance (inverse of linear distance for field-strength measurements or inverse of linear distance-squared for power-density measurements).

As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

According to ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, section 5.3.3

Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field, and the emissions to be measured can be detected by the measurement equipment (see 4.3.4).

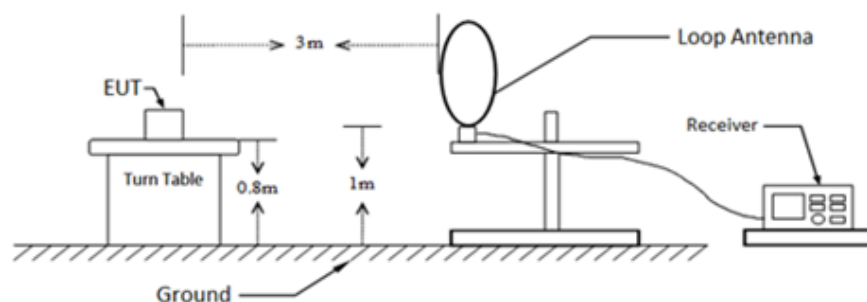
Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. Measurements from 18 GHz to 40 GHz are typically made at distances significantly less than 3 m from the EUT. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade of distance (inverse of linear distance for field-strength measurements or inverse of linear distance-squared for power-density measurements).

As per RSS-247 6.6,

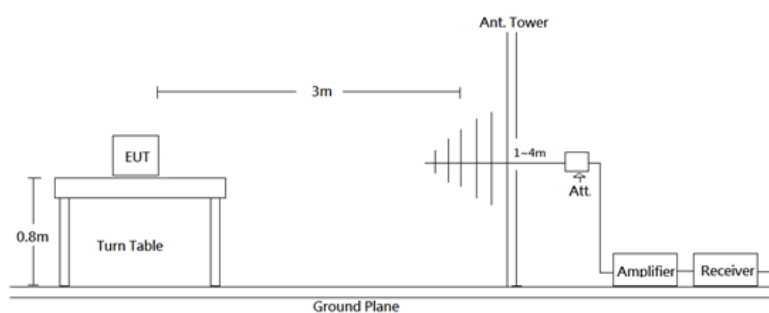
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum device, digitally modulated device, or hybrid system is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power – based on either an RF conducted or a radiated measurement – provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 6.3.2, the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

7.2 EUT Setup

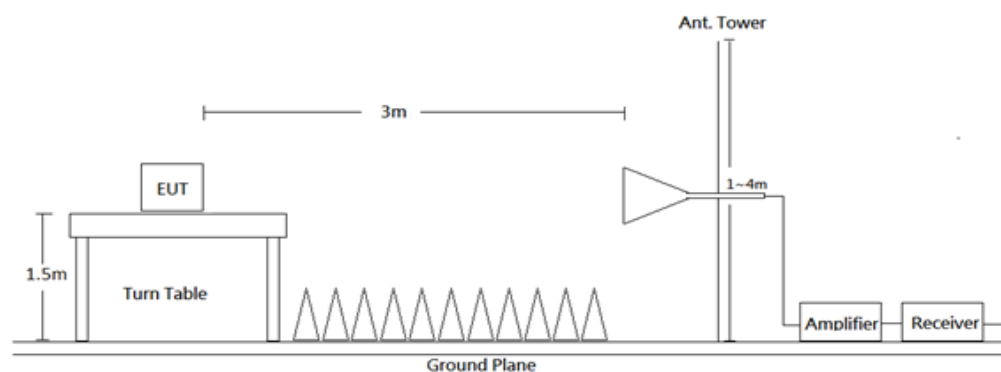
9kHz-30MHz:



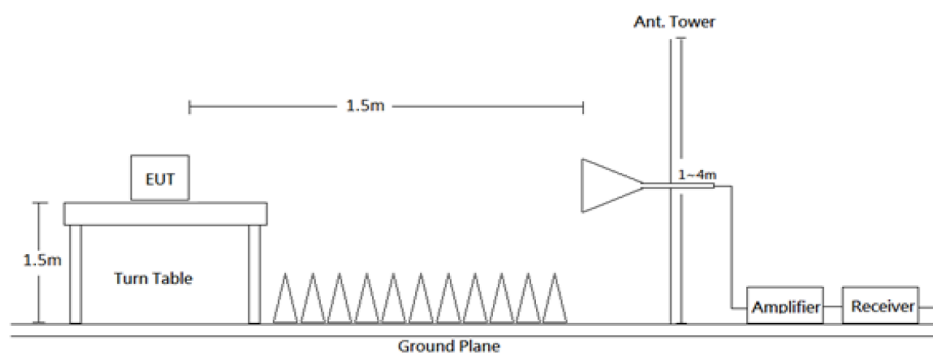
30MHz- 1GHz:



1-18 GHz:



18-26.5 GHz:



Radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2020 + Cor: 1-2023 + C63.10a-2024 + Errata to C63.10a-2024. The specification used was the FCC Part 15.209 and FCC 15.247 and RSS-Gen and RSS-247 Limits.

7.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 26.5 GHz. During the radiated emission test, the EMI test receiver was set with the following configurations measurement method 6.3 in ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024.

Frequency Range	RBW	VBW	Duty cycle	Measurement method	Detector
9 kHz - 150 kHz	200 Hz/300 Hz	1 kHz	/	QP/AV	QP/AV
150 kHz - 30 MHz	9 kHz/10 kHz	30 kHz	/	QP/AV	QP/AV
30-1000 MHz	120 kHz	500 kHz	/	QP	QP
Above 1 GHz	Pre-scan :				
	1 MHz	3 MHz	/	PK	PK
	1 MHz	1 kHz	>98%	AV	PK
	1 MHz	$\geq 1/T_{on}$, not less than 1 Hz	<98%	AV	PK
	Final measurement for emission identified during pre-scan :				
	1 MHz	3 MHz	/	PK	PK
	1 MHz	10 Hz	>98%	AV	PK
	1 MHz	$\geq 1/T_{on}$	<98%	AV	PK

Note: T is minimum transmission duration

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

7.4 Test Procedure

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

All data was recorded in Quasi-peak and average detector mode from 9 kHz to 30 MHz, Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

7.5 Factor & Over Limit Calculation

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

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

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 Over Limit calculation is as follows:

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

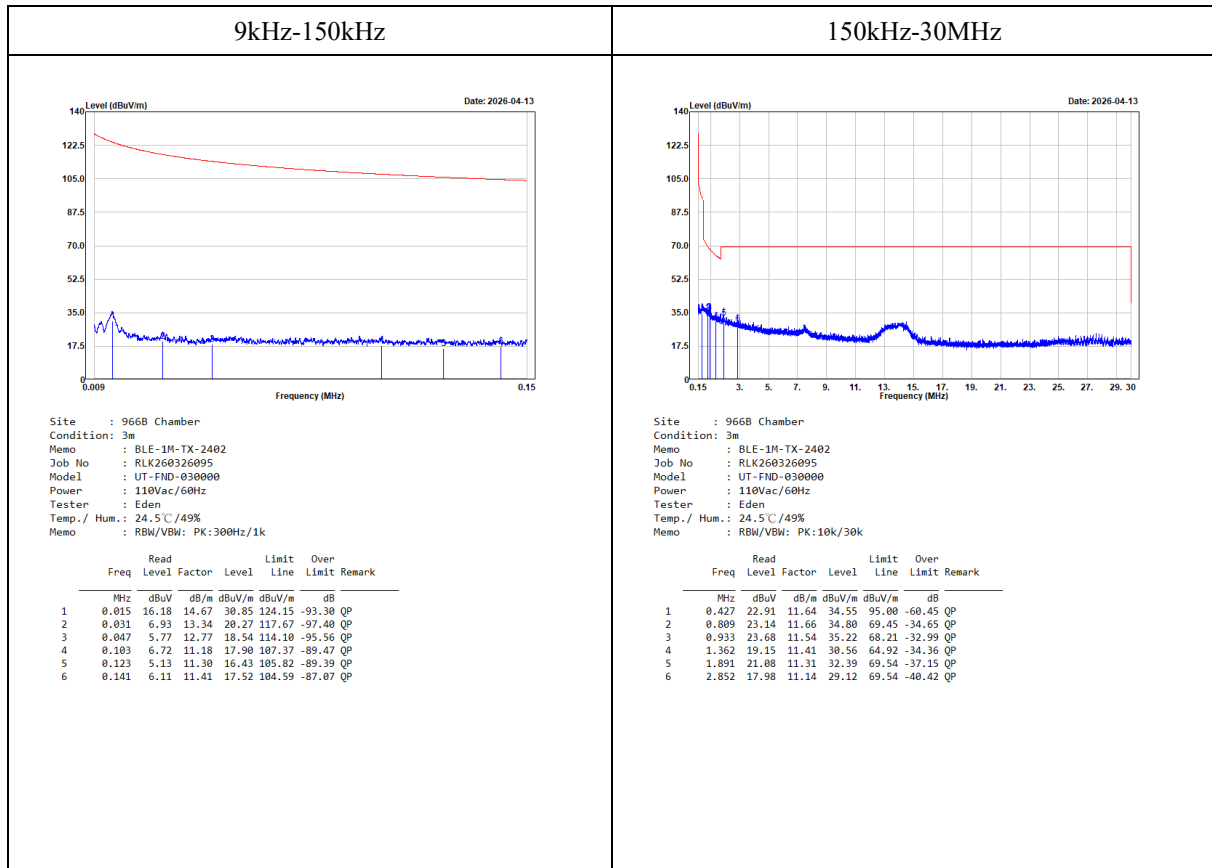
7.6 Test Results

Test Mode: Transmitting (Pre-scan with three orthogonal axis, and worse case as Y axis.)

9kHz-30MHz:

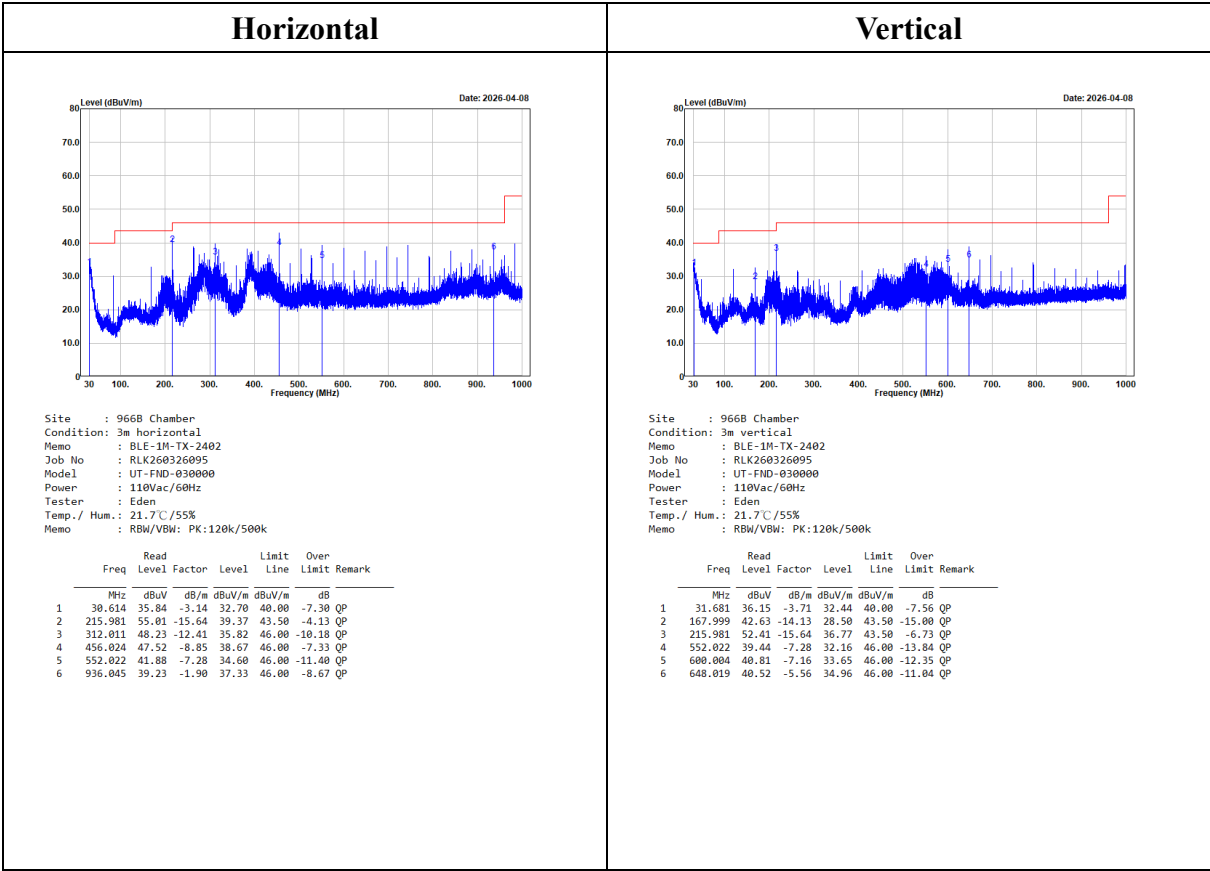
(worst case is BLE 1M mode low channel)

(Pre-scan using three directional polarities, worst case as parallel.)

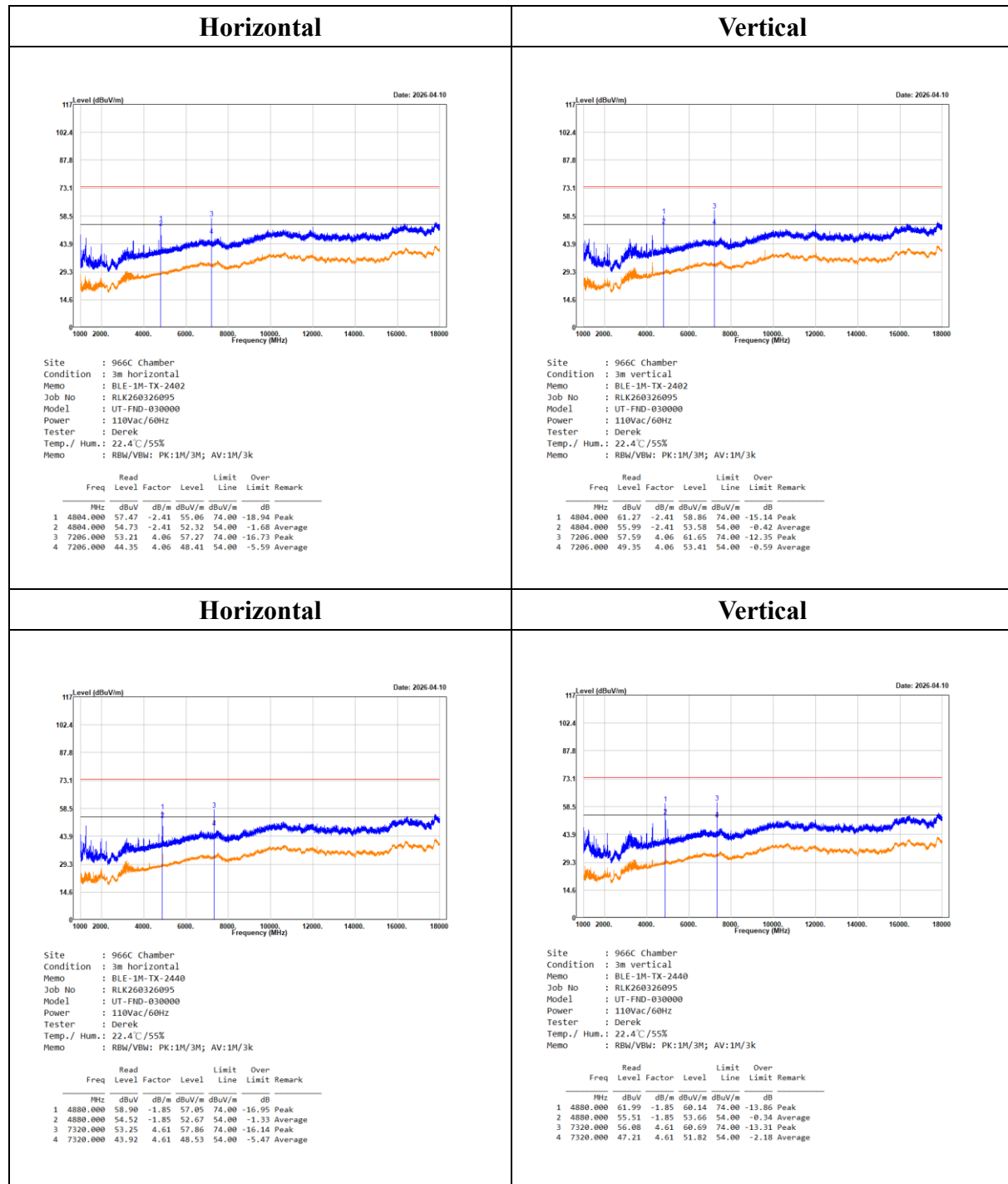


30MHz-1GHz:

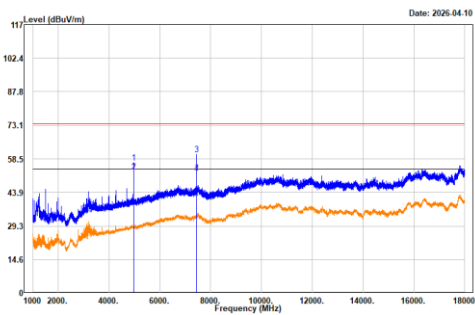
(worst case is BLE 1M mode low channel)



1GHz-18GHz:



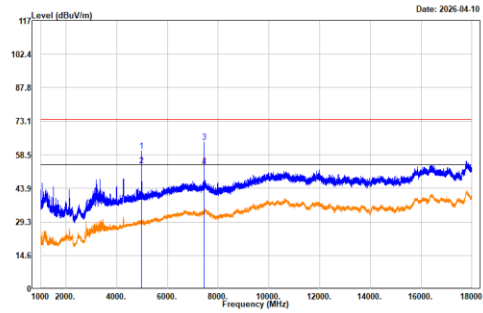
Horizontal



Site : 966C Chamber
Condition : 3m horizontal
Memo : BLE-1M-TX-2480
Job No : RLK260326095
Model : UT-FHD-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum.: 22.4°C/55%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	
Freq	Level			Line	Limit	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1 4960.000	58.62	-1.81	56.81	74.00	-17.19	Peak
2 4960.000	54.84	-1.81	53.03	54.00	-0.97	Average
3 7440.000	55.46	4.97	60.43	74.00	-13.57	Peak
4 7440.000	47.49	4.97	52.46	54.00	-1.54	Average

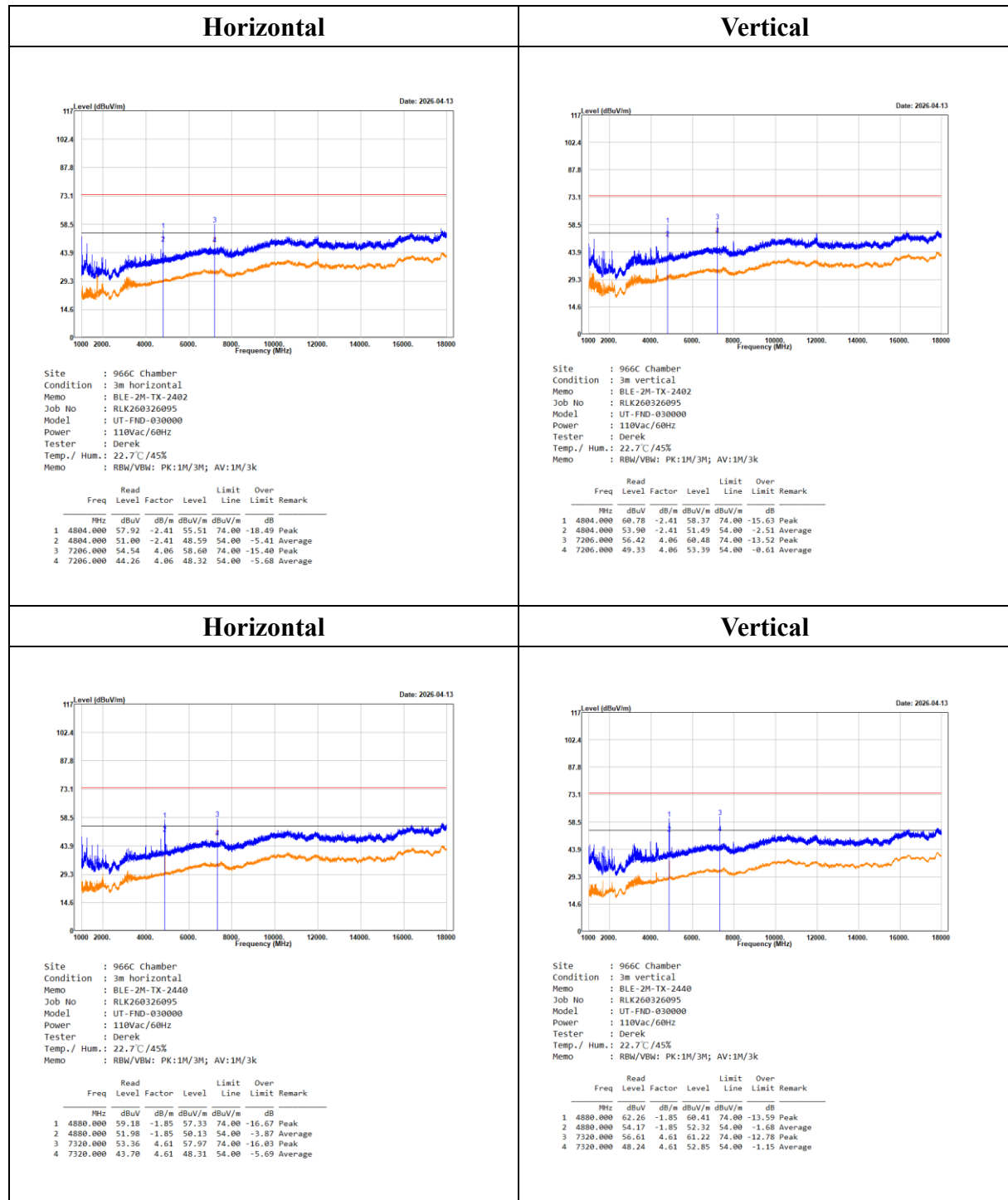
Vertical



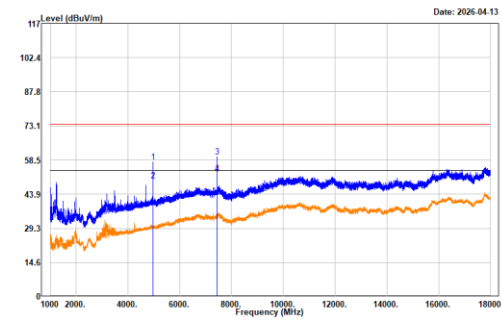
Site : 966C Chamber
Condition : 3m vertical
Memo : BLE-1M-TX-2480
Job No : RLK260326095
Model : UT-FHD-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum.: 22.4°C/55%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

	Read	Factor	Level	Limit	Over	
Freq	Level			Line	Limit	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1 4960.000	61.93	-1.81	60.12	74.00	-13.88	Peak
2 4960.000	55.57	-1.81	53.76	54.00	-0.24	Average
3 7440.000	59.00	4.97	63.97	74.00	-10.03	Peak
4 7440.000	48.63	4.97	53.60	54.00	-0.40	Average

1GHz-18GHz:



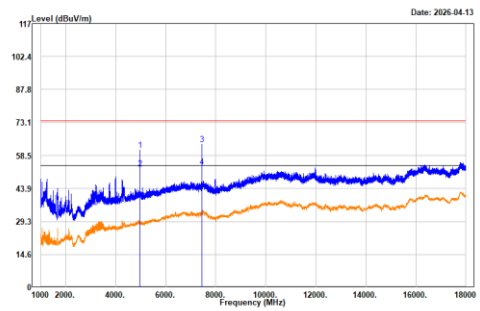
Horizontal



Site : 966C Chamber
Condition : 3m horizontal
Memo : BLE-2M-TX-2480
Job No : RLK260326095
Model : UT-FND-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum.: 22.7°C/45%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	4960.000	59.50	-1.81	57.69	74.00	-16.31	Peak
2	4960.000	51.57	-1.81	49.76	54.00	-4.24	Average
3	7440.000	54.99	4.97	59.96	74.00	-14.04	Peak
4	7440.000	47.89	4.97	52.86	54.00	-1.14	Average

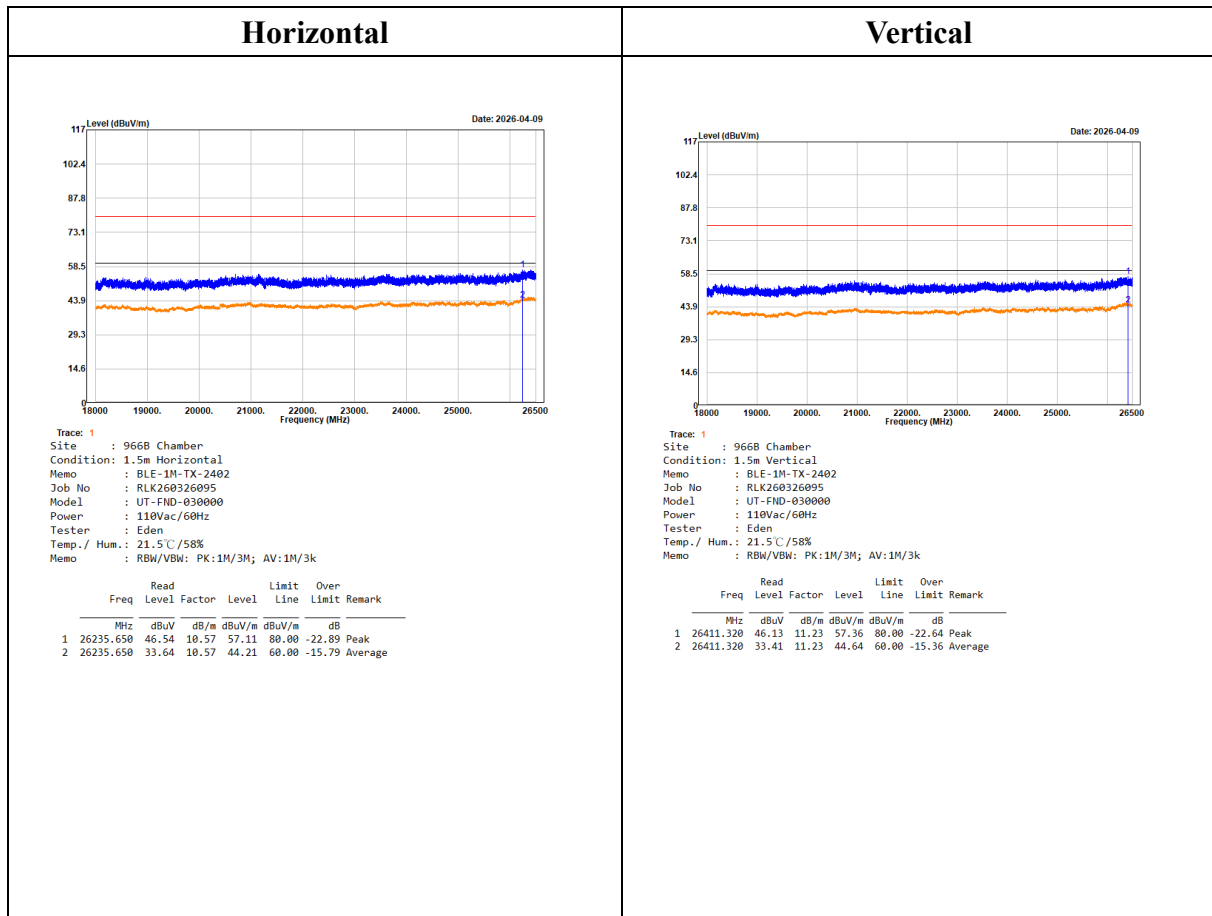
Vertical



Site : 966C Chamber
Condition : 3m vertical
Memo : BLE-2M-TX-2480
Job No : RLK260326095
Model : UT-FND-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum.: 22.7°C/45%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Remark
	MHz	dBuV	dB/m	dBuV/m	dB	
1	4960.000	62.73	-1.81	60.92	74.00	-13.08 Peak
2	4960.000	54.45	-1.81	52.64	54.00	-1.36 Average
3	7440.000	58.51	4.97	63.48	74.00	-10.52 Peak
4	7440.000	48.65	4.97	53.62	54.00	-0.38 Average

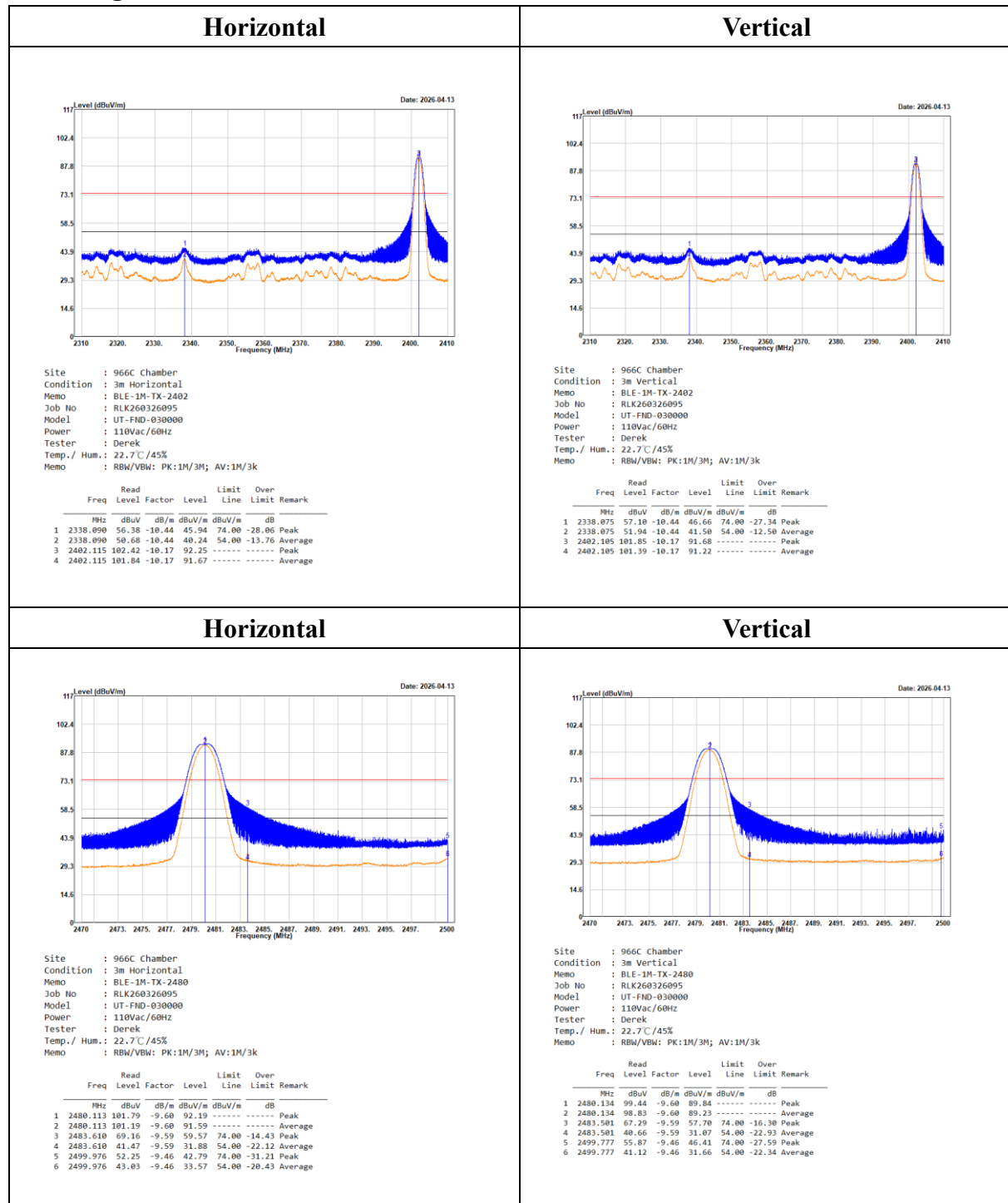
18GHz-26.5GHz:



Note:

For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1.5 meter:

Conversion factor = $20 \log (3\text{m}/1.5\text{m}) = 6 \text{ dB}$,Average Limit = $54+6 = 60 \text{ dBuV/m @1.5m}$, Peak Limit = $60+20 = 80 \text{ dBuV/m @1.5m}$

Band-Edge:

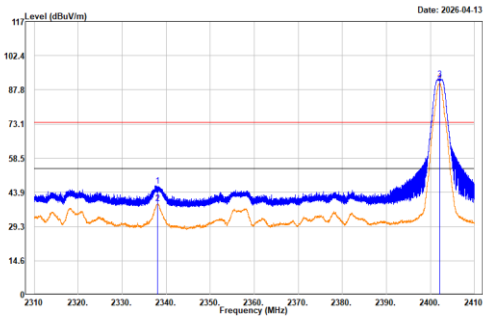
Note:

$Level = Read\ Level + Factor$

$Over\ Limit = Level - Limit\ Line$

$Factor = Antenna\ Factor + Cable\ Loss - Amplifier\ Gain$

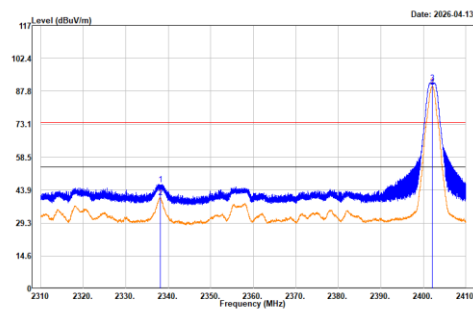
Horizontal



Site : 966C Chamber
Condition : 3m Horizontal
Memo : BLE-2M-TX-2402
Job No : RLK260326095
Model : UT-FND-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum. : 22.7°C /45%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Read	Level	Factor	Level	Limit	Over
Freq	dBuV		dBuV/m	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2338.000	57.12	-10.44	46.68	74.00	-27.32 Peak
2 2338.000	49.62	-10.44	39.18	54.00	-14.82 Average
3 2402.115	102.32	-10.17	92.15	-----	----- Peak
4 2402.115	100.75	-10.17	90.58	-----	----- Average

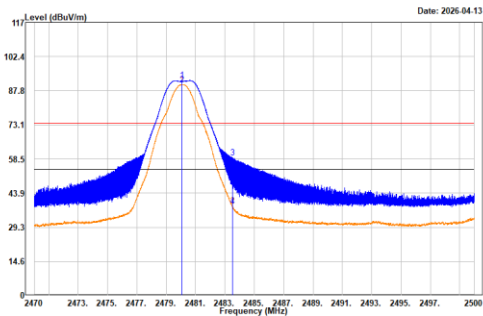
Vertical



Site : 966C Chamber
Condition : 3m Vertical
Memo : BLE-2M-TX-2402
Job No : RLK260326095
Model : UT-FND-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum. : 22.7°C /45%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Read	Level	Factor	Level	Limit	Over
Freq	dBuV		dBuV/m	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2338.205	56.94	-10.44	46.50	74.00	-27.50 Peak
2 2338.205	50.98	-10.44	40.54	54.00	-13.46 Average
3 2402.120	101.65	-10.19	91.46	-----	----- Peak
4 2402.120	100.00	-10.17	89.91	-----	----- Average

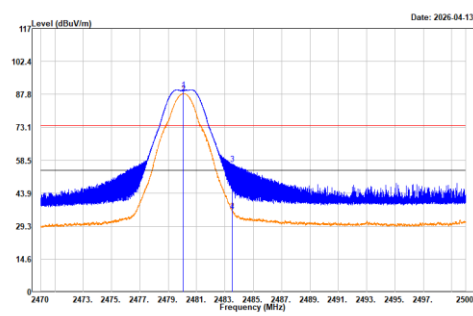
Horizontal



Site : 966C Chamber
Condition : 3m Horizontal
Memo : BLE-2M-TX-2480
Job No : RLK260326095
Model : UT-FND-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum. : 22.7°C /45%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Read	Level	Factor	Level	Limit	Over
Freq	dBuV		dBuV/m	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2480.084	101.76	-9.60	92.16	-----	----- Peak
2 2480.084	100.02	-9.60	90.42	-----	----- Average
3 2483.500	68.58	-9.59	58.99	74.00	-15.01 Peak
4 2483.500	47.92	-9.59	38.33	54.00	-15.67 Average

Vertical



Site : 966C Chamber
Condition : 3m Vertical
Memo : BLE-2M-TX-2480
Job No : RLK260326095
Model : UT-FND-030000
Power : 110Vac/60Hz
Tester : Derek
Temp./ Hum. : 22.7°C /45%
Memo : RBW/VBW: PK:1M/3M; AV:1M/3k

Read	Level	Factor	Level	Limit	Over
Freq	dBuV		dBuV/m	Line	Limit Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 2480.070	99.54	-9.60	89.94	-----	----- Peak
2 2480.070	97.78	-9.60	88.18	-----	----- Average
3 2483.510	66.32	-9.59	56.73	74.00	-17.27 Peak
4 2483.510	45.70	-9.59	36.11	54.00	-17.89 Average

Note:

$Level = Read\ Level + Factor$

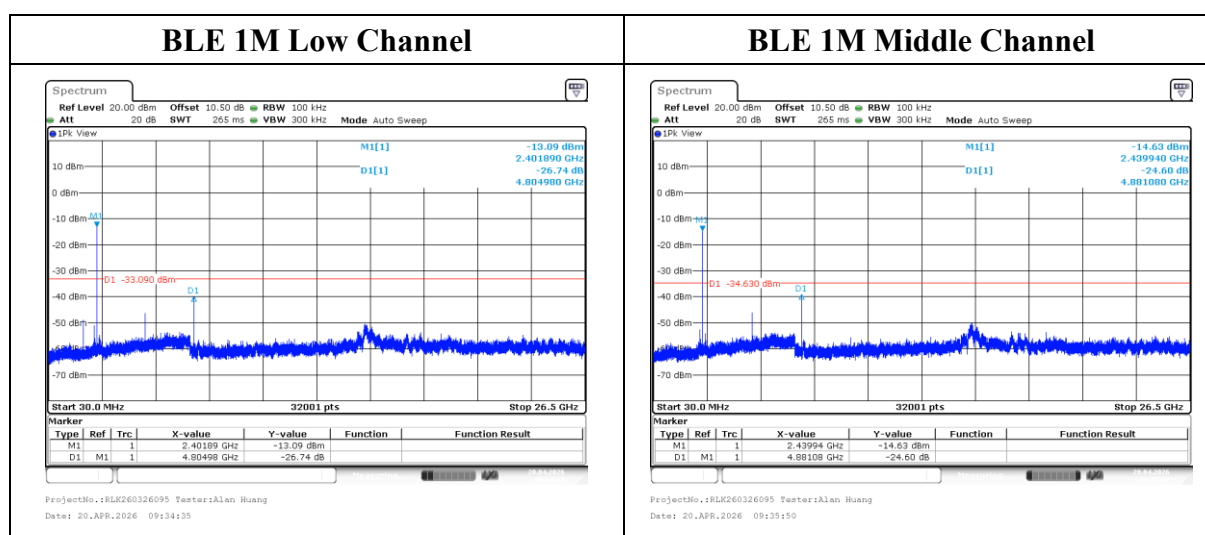
$Over\ Limit = Level - Limit\ Line$

$Factor = Antenna\ Factor + Cable\ Loss - Amplifier\ Gain$

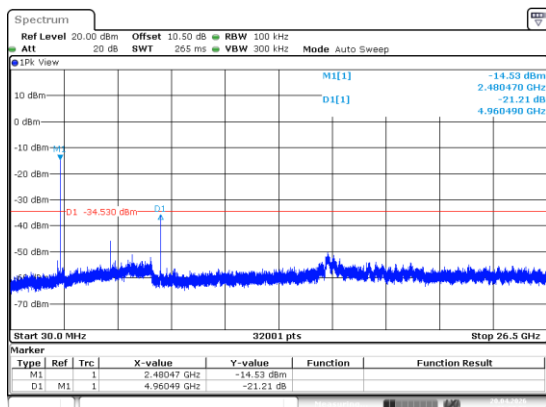
Conducted Spurious Emissions:

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
BLE 1M				
Low	2402	26.74	≥ 20	PASS
Mid	2440	24.60	≥ 20	PASS
High	2480	21.21	≥ 20	PASS
BLE 2M				
Low	2402	30.76	≥ 20	PASS
Mid	2440	29.84	≥ 20	PASS
High	2480	24.55	≥ 20	PASS

Please refer to the following plots

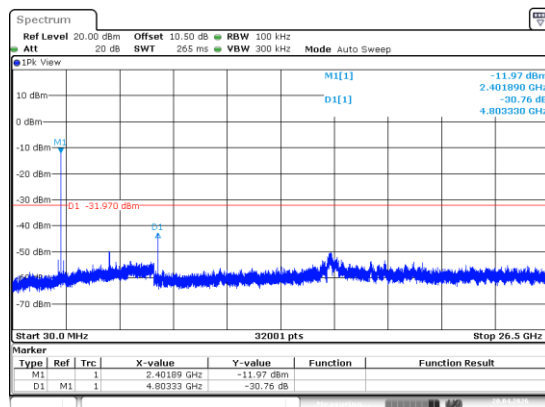


BLE 1M High Channel



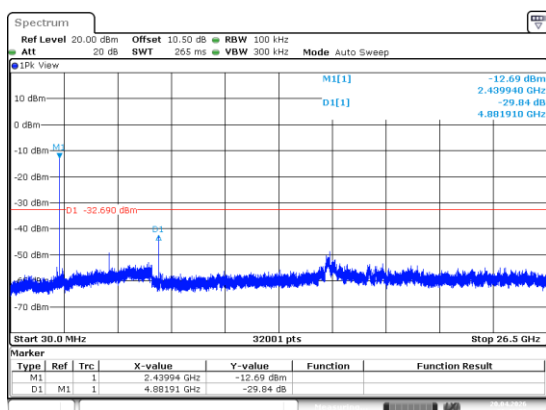
ProjectNo.:RLK260326095 Tester:Alan Huang
Date: 20.APR.2026 09:37:54

BLE 2M Low Channel



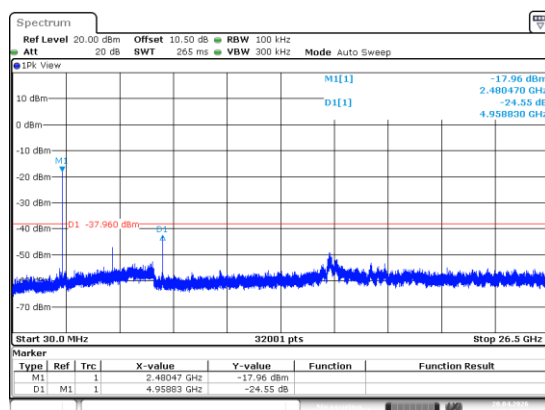
ProjectNo.:RLK260326095 Tester:Alan Huang
Date: 20.APR.2026 09:45:51

BLE 2M Middle Channel



ProjectNo.:RLK260326095 Tester:Alan Huang
Date: 20.APR.2026 09:46:59

BLE 2M High Channel



ProjectNo.:RLK260326095 Tester:Alan Huang
Date: 20.APR.2026 09:51:06

8 FCC §15.247(a)(2) & RSS-247 §6.3.1 (a), RSS-GEN §6.7 – 6 dB Emission Bandwidth & Occupied Bandwidth

8.1 Applicable Standard

According to FCC §15.247(a)(2).

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

According to RSS-GEN §6.7

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

According to RSS-247 §6.3.1 (a)

The minimum 6 dB bandwidth shall be 500 kHz.

8.2 Test Procedure

For 6 dB Emission Bandwidth:

According to ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, section 11.8.1

The steps for the first option are as follows:

- a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- b) Set the VBW $\geq [3 \times \text{RBW}]$.
- c) Detector = peak.
- d) Trace mode = max-hold.
- e) Sweep = No faster than coupled (auto) time.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “–6 dB down amplitude”. If a marker is below this “–6 dB down amplitude” value, then it shall be as close as possible to this value.

For 99% Occupied Bandwidth

According to ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (\text{OBW}/\text{RBW})]$ below the reference level. Specific guidance is given in 4.1.6.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max-hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

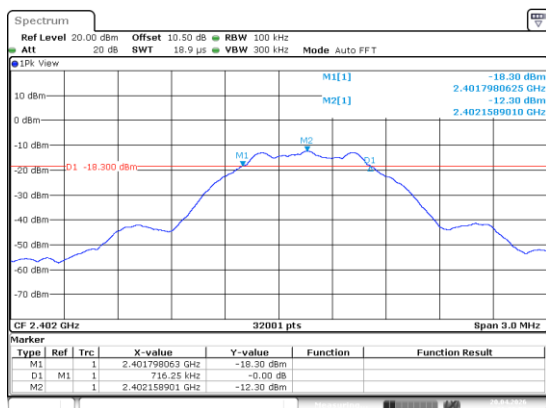
8.3 Test Results

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)	Result
BLE 1M					
Low	2402	0.716	1.040	≥ 500	PASS
Middle	2440	0.711	1.044	≥ 500	PASS
High	2480	0.699	1.049	≥ 500	PASS
BLE 2M					
Low	2402	1.133	2.043	≥ 500	PASS
Middle	2440	1.135	2.048	≥ 500	PASS
High	2480	1.143	2.056	≥ 500	PASS

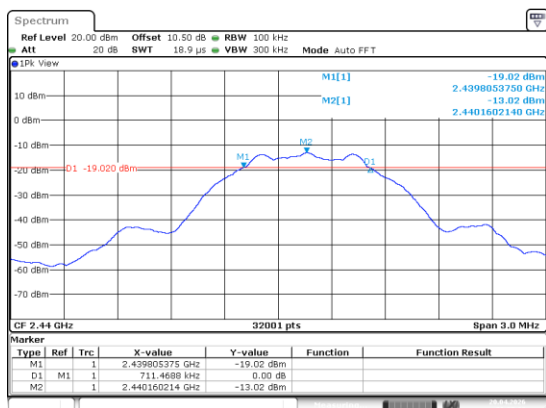
Please refer to the following plots

6 dB Emission Bandwidth

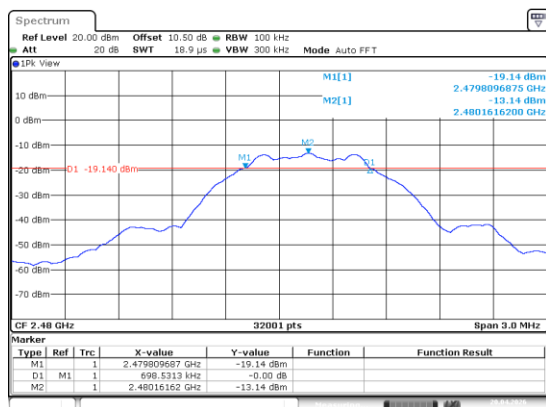
BLE 1M Low Channel



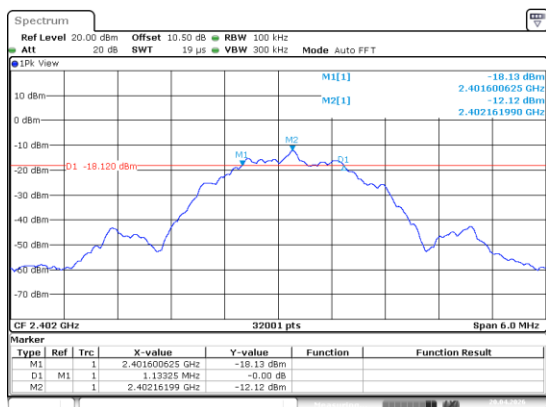
BLE 1M Middle Channel



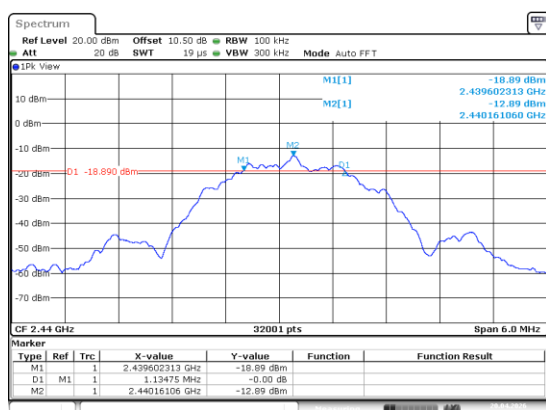
BLE 1M High Channel



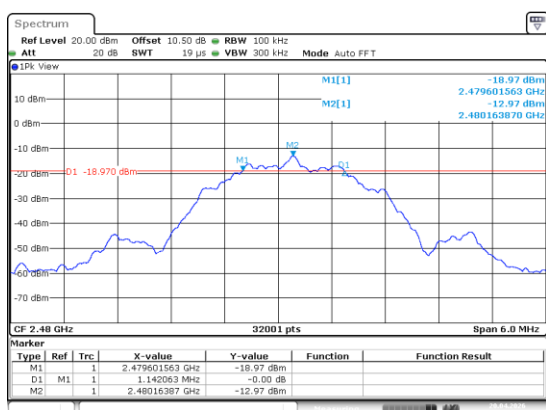
BLE 2M Low Channel



BLE 2M Middle Channel

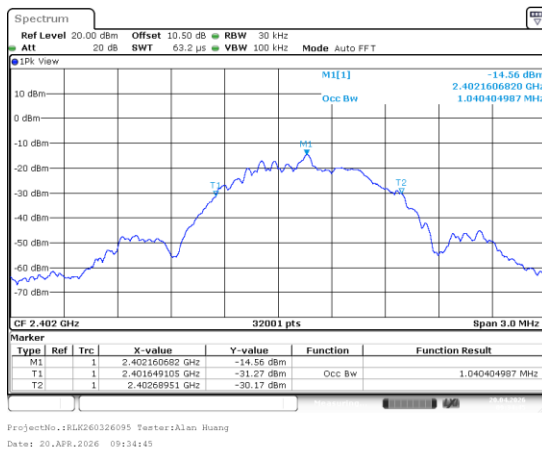


BLE 2M High Channel

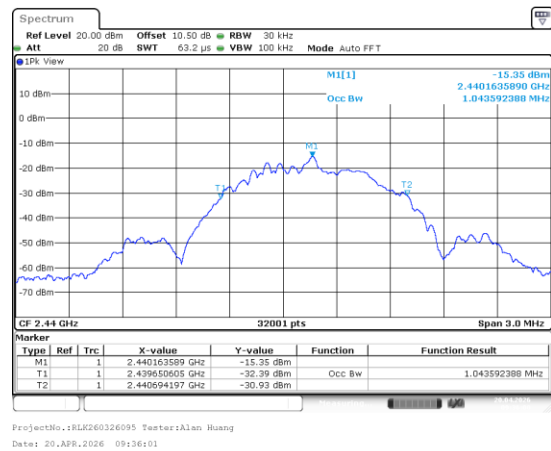


99% Occupied Bandwidth

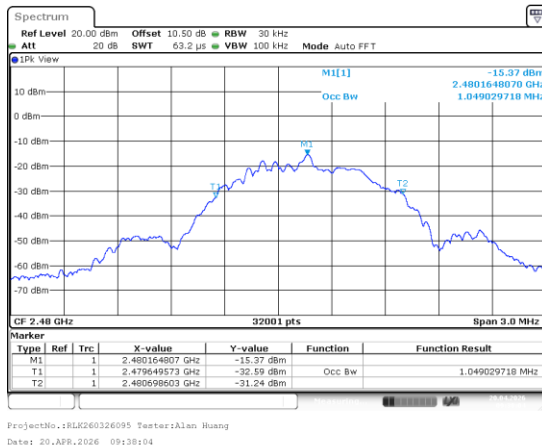
BLE 1M Low Channel



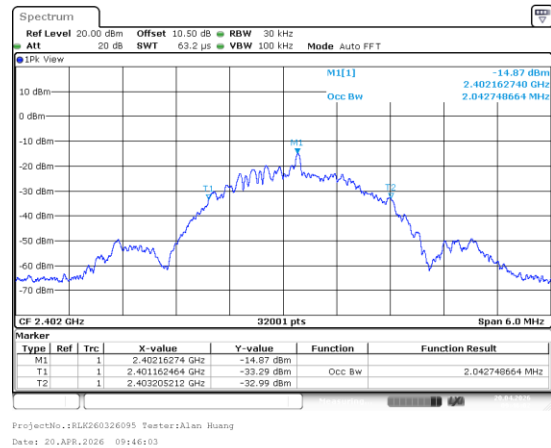
BLE 1M Middle Channel



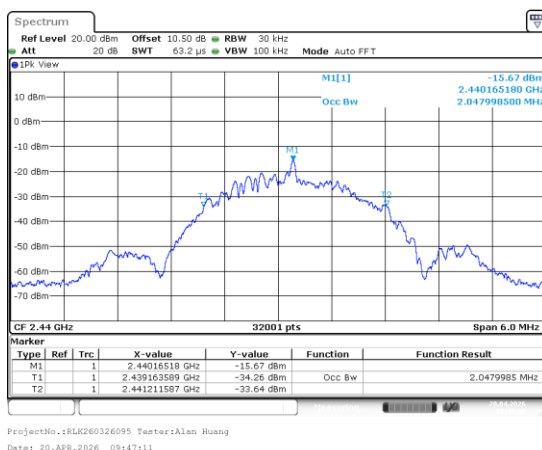
BLE 1M High Channel



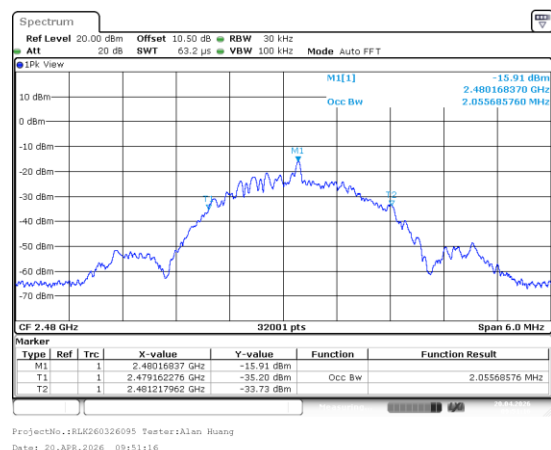
BLE 2M Low Channel



BLE 2M Middle Channel



BLE 2M High Channel



9 FCC §15.247(b) & RSS-247 §6.3.2 – Maximum Output Power

9.1 Applicable Standard

According to FCC §15.247(b).

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

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.

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to RSS-247 §6.3.2

For DTS operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1W, and the e.i.r.p. shall not exceed 4 W.

For DTS operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W, and the e.i.r.p. shall not exceed 4 W, except as provided in section 6.5 a) and b).

As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power. The maximum conducted output power is the total transmit power delivered to all antennas and antenna elements, averaged across all symbols in the signalling 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 transmitting at a reduced power level. If multiple modes of operation are implemented, the maximum conducted output power is the highest total transmit power occurring in any mode.

9.2 Test Procedure

According to ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024, section 11.9.1.2

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to measuring equipment.

9.3 Test Results

Conducted Peak Output Power

Frequency (MHz)	Peak Power (dBm)	Power (W)	FCC Limit (W)	Gain (dBi)	EIRP Power (dBm)	EIRP Power (W)	RSS-247 Limit (W)	Result
BLE 1M								
2402	-8.46	0.00014	1	-0.59	-9.05	0.00012	4	PASS
2440	-8.94	0.00013	1	-0.59	-9.53	0.00011	4	PASS
2480	-8.73	0.00013	1	-0.59	-9.32	0.00012	4	PASS
BLE 2M								
2402	-8.75	0.00013	1	-0.59	-9.34	0.00012	4	PASS
2440	-9.06	0.00012	1	-0.59	-9.65	0.00011	4	PASS
2480	-9.00	0.00013	1	-0.59	-9.59	0.00011	4	PASS

10 FCC §15.247(d) & RSS-247 §6.6 – 100 kHz Bandwidth of Frequency Band Edge

10.1 Applicable Standard

According to FCC §15.247(d).

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30dB instead of 20dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

According to RSS-247 §6.6.

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum device, digitally modulated device, or hybrid system is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power – based on either an RF conducted or a radiated measurement – provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 6.3.2, the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

10.2 Test Procedure

According to ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024 Section 11.11

a) Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution.

NOTE—the number of points can also be increased for large spans to retain frequency resolution

b) Set the RBW = 100 kHz.

c) Set the VBW $\geq [3 \times \text{RBW}]$.

d) Detector = peak.

e) Sweep time = No faster than coupled (auto) time.

f) Trace mode = max-hold.

g) Allow trace to fully stabilize.

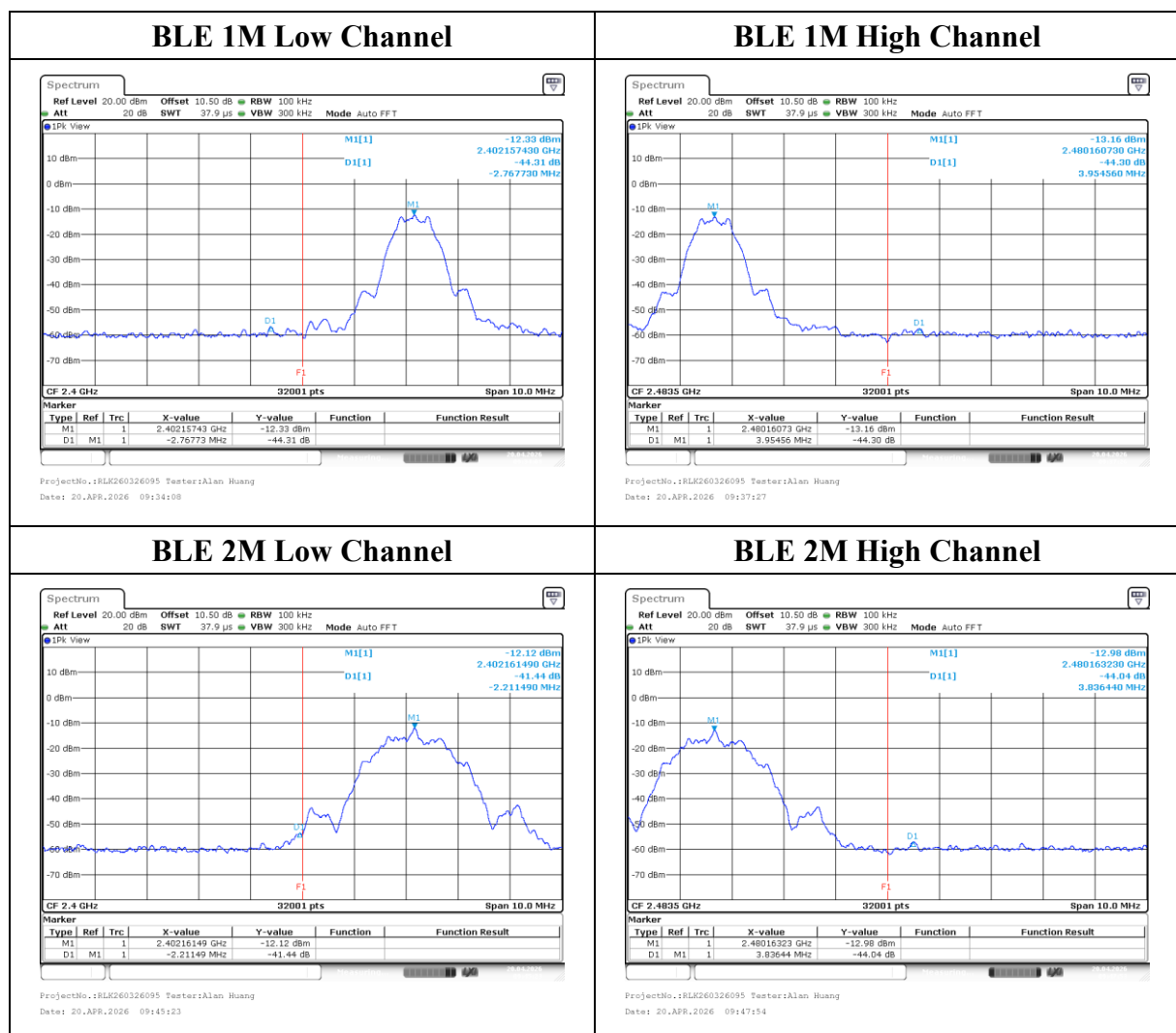
h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

10.3 Test Results

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
BLE 1M				
Low	2402	44.31	≥ 20	PASS
High	2480	44.30	≥ 20	PASS
BLE 2M				
Low	2402	41.44	≥ 20	PASS
High	2480	44.04	≥ 20	PASS

Please refer to the following plots.



11 FCC §15.247(e) & RSS-247 §6.3.1(b) – Power Spectral Density

11.1 Applicable Standard

According to FCC §15.247(e).

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

According to RSS-247 §6.3.1(b).

The transmitter power spectral density conducted from the transmitter to the antenna(s) shall not be greater than 8 dBm/3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 6.3.2 The power spectral density shall be determined using the same method as is used to determine the maximum conducted output power.

11.2 Test Procedure

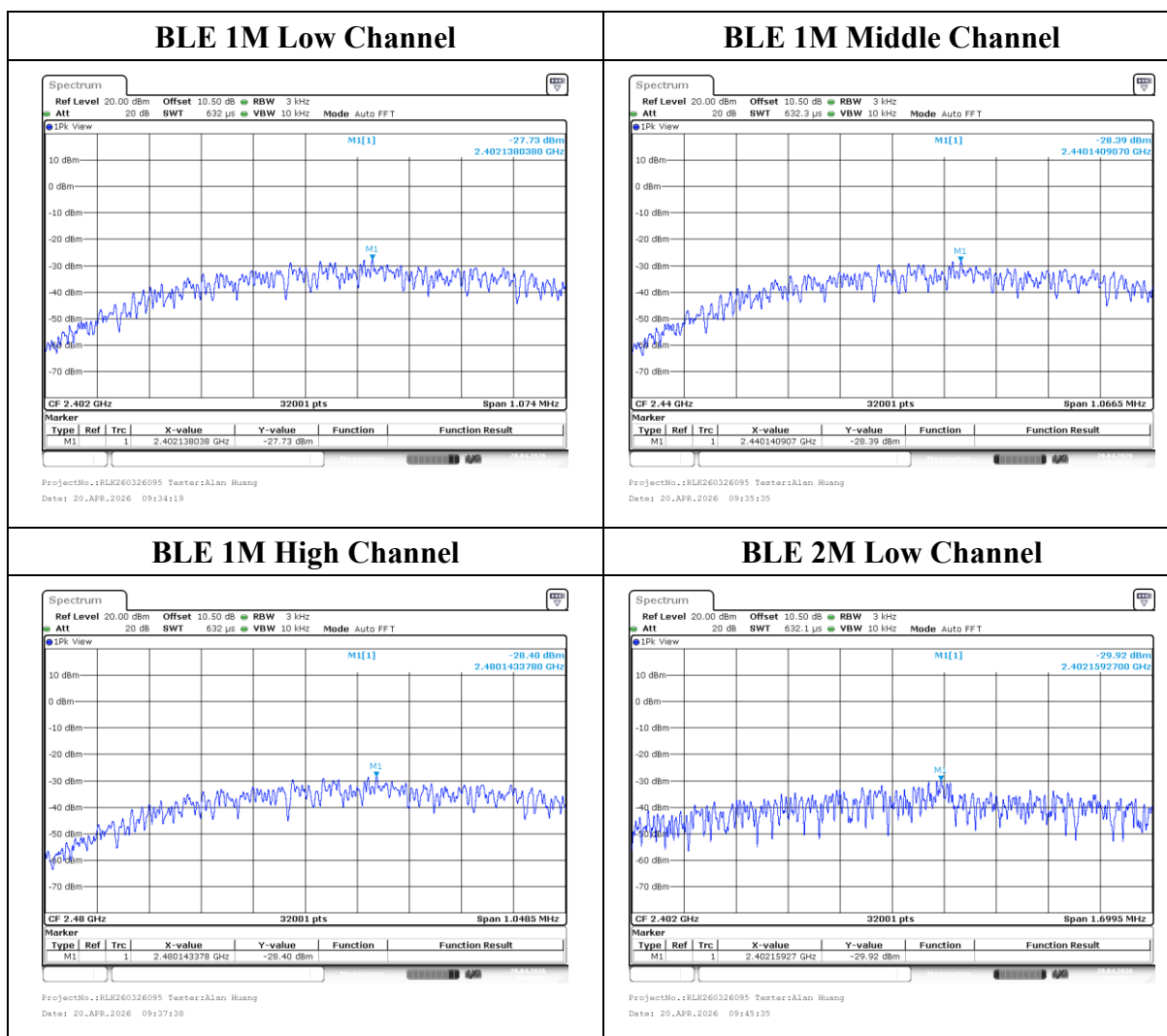
According to ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024 section 11.10.2

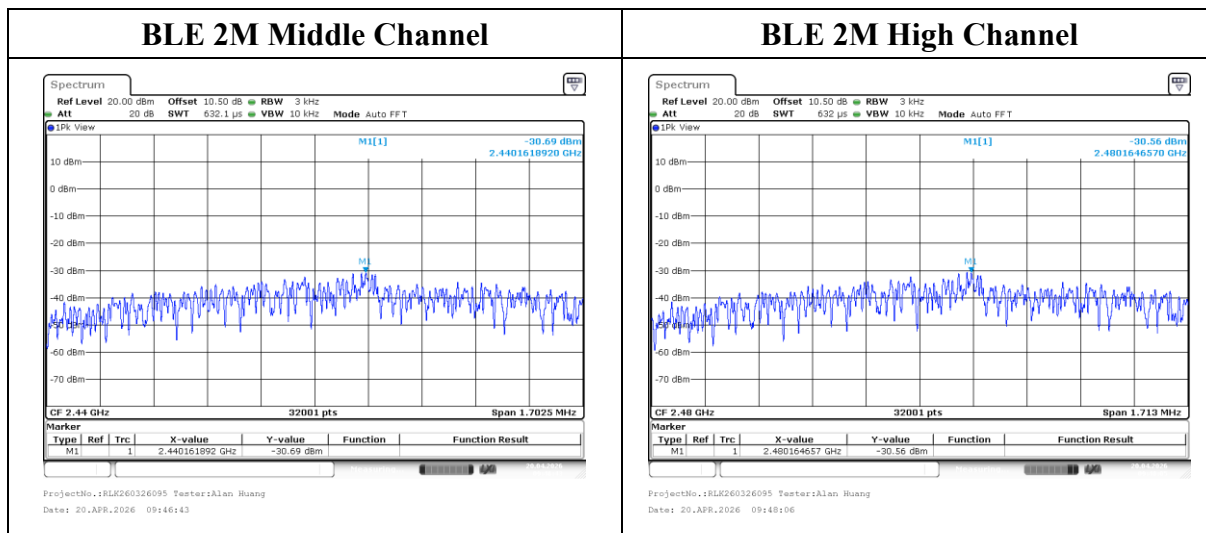
- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span > 1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat

11.3 Test Results

Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Limit (dBm/3 kHz)	Result
BLE 1M				
Low	2402	-27.73	8	PASS
Middle	2440	-28.39	8	PASS
High	2480	-28.40	8	PASS
BLE 2M				
Low	2402	-29.92	8	PASS
Middle	2440	-30.69	8	PASS
High	2480	-30.56	8	PASS

Please refer to the following plots





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