

Prüfbericht-Nr.: Test report no.:	CN26P590 002	Auftrags-Nr.: Order no.:	27228259	Seite 1 von 22 Page 1 of 22
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2026-04-09	
Auftraggeber: Client:	Aputure Imaging Industries Co., Ltd. Floor 1, Building 21, Baolongjun Industrial Park, No.1004, Longhua Heping Road, Longping Community, Dalang Street, Longhua District, Shenzhen, Guangdong 518110, China			
Prüfgegenstand: Test item:	amaran Wireless Desktop Microphone			
Bezeichnung / Typ-Nr.: Identification / Type no.:	amaran Mic			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	CFR Title 47 FCC Part 15: Subpart C Section 15.247 RSS-247 Issue 4 July 2025 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: Date of sample receipt:	2026-04-13 2026-06-04	(Please refer to Photo Document)		
Prüfmuster-Nr.: Test sample no.:	A004245875-002~003 A004300240-001			
Prüfzeitraum: Testing period:	2026-04-30 - 2026-05-09			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	 Hardy Suo	genehmigt von: authorized by:	 Lin Lin	
Datum: Date:	2026-06-19	Ausstellungsdatum: Issue date:	2026-06-19	
Stellung / Position:	Sachverständige(r)/Expert	Stellung / Position:	Sachverständige(r)/Expert	
Sonstiges / Other:	FCC ID: 2AABZ-MICTX IC: 28850-MICTX HVIN: MICTX			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

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Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

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Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.8 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Bluetooth LE

Appendix B: Photographs of the Test Set-up

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China

A2LA Certificate Number: 5162.01

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend 2)					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
Wireless Connectivity Tester	R&S	CMW270	101375	2025-09-23	2026-09-22
Signal Analyzer	R&S	FSV 40	101441	2025-09-23	2026-09-22
Vector Signal Generator	R&S	SMBV100A	263301	2025-10-30	2026-10-29
Signal Generator	R&S	SMB100A	115186	2025-09-23	2026-09-22
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2025-09-23	2026-09-22
Control PC	Lenovo	1HH43Q4	F807B09DD5F1	N/A	N/A
Test Software	Tonscend	JS1120-3	N/A	N/A	N/A
Power Meter	R&S	NRP2	107105	2025-10-30	2026-10-29
Power Sensor	R&S	NRP-Z81	105677	2025-09-23	2026-09-22
Shielding Room	Albatross	SR1	APC17151-SR1	2024-09-14	2027-09-13
Unwanted Emission Testing (TS9975)					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	2025-09-22	2026-09-21
Signal Analyzer	R&S	FSV 40	101439	2025-09-22	2026-09-21
System Controller Interface	R&S	SCI-100	S10010038	N/A	N/A
Filterbank	R&S	Wlan	100759	2025-09-22	2026-09-21
OSP	R&S	OSP 120	102040	N/A	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2025-09-22	2026-09-21
Amplifier	R&S	SCU-18F	180070	2025-09-22	2026-09-21
Amplifier	R&S	SCU40A	100475	2025-09-22	2026-09-21
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2024-09-28	2026-09-27
Double-Ridged Antenna (1-18 GHz)	ETS-LINDGREN	3117	00218717	2024-09-28	2026-09-27
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2024-09-28	2026-09-27

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Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2024-09-28	2026-09-27
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	2024-09-14	2027-09-13

Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102428	2026-07-18
Artificial Mains Network	R&S	ENV432	101546	2027-02-03
Artificial Mains Network	R&S	ENV432	101411	2026-07-18
EMC32 Test Software	R&S	EMC32(Ver.10.60.20)	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Table 2: Measurement Uncertainty

Parameter	Uncertainty (k=2)
RF output power, conducted	± 0.99 dB
Occupied Channel Bandwidth	± 2.08 %
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	± 4.17 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.24 dB / ± 3.24 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

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2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The product is an amaran Wireless Desktop Microphone, which supports Bluetooth low energy wireless technology.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	amaran Wireless Desktop Microphone
Type Designation:	amaran Mic
FCC ID:	2AABZ-MICTX
IC:	28850-MICTX
HVIN:	MICTX
Operating Voltage:	Input: DC 5V, 2A Built-in Battery: Capacity: DC 3.7V, 3000mAh, 11.1Wh
Testing Voltage:	Fully charged battery or AC 120V, 60Hz
Technical Specification of Bluetooth LE	
Operating Frequency:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK
Channel Number:	40 channels
Channel Separation:	2MHz
Data Rate:	1 Mbps, 2 Mbps
Antenna Type:	Integral Antenna
Antenna Gain:	5.08 dBi (Provided by the Client)

Note: The correctness of all data provided by customer in the test report is ensured and responsible of the customer. Any misjudgment of the test results caused by the use of incorrect data provided by customer shall be borne by the customer.

Table 4: RF Channel and Frequency of Bluetooth LE

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF 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

Test frequencies are lowest channel: 2402 MHz, middle channel: 2440 MHz and highest channel: 2480 MHz for Bluetooth LE

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, Charging + Normal working

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- User Manual
- Operation Description
- FCC/IC Label and Location Info

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024.

According to clause 3.1, all tests were performed on model amaran Mic in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
amaran Mic Receiver	Aputure Imaging Industries Co., Ltd.	amaran Mic RX	n/a
AC/DC Adapter	Belkin	Model: WCA008dq Input: 100-240V, 50/60Hz, 0.8A Output: (PDO) DC 5V/3A, DC 9V/3A, DC 15V/2A, DC 20V/1.5A, (PPS) DC 5-11V/2.7A, DC 5-16V/1.85A	n/a
Laptop	Lenovo	T480	n/a

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

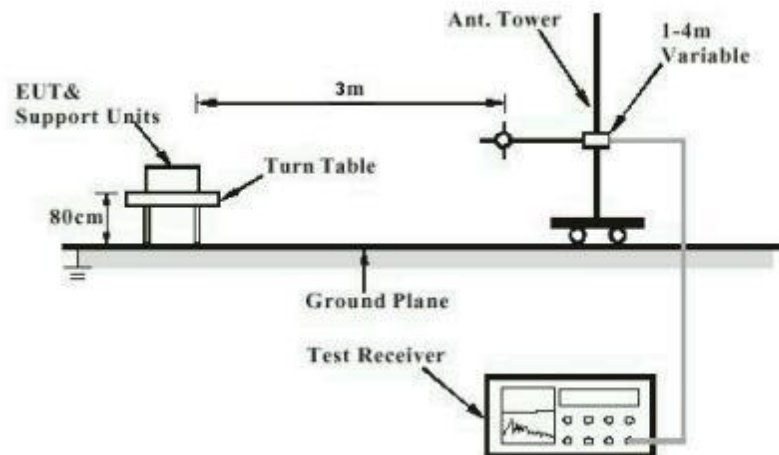


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

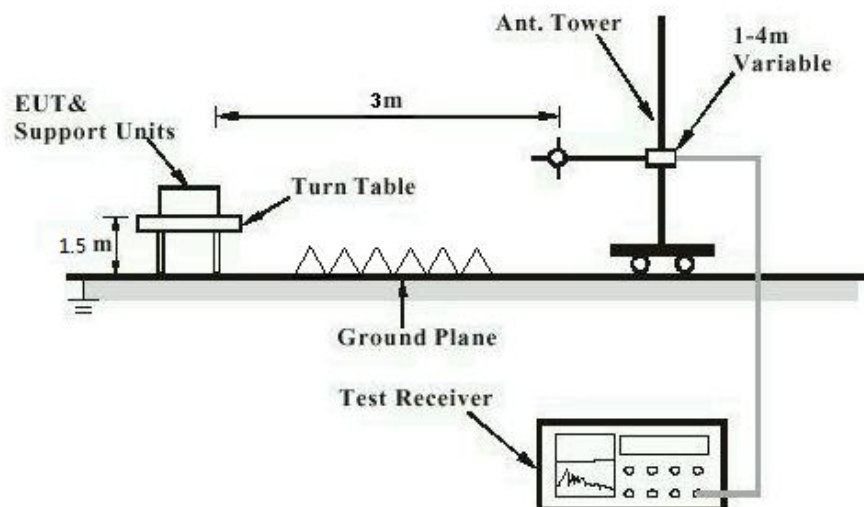


Diagram of Measurement Configuration for Mains Conduction Measurement

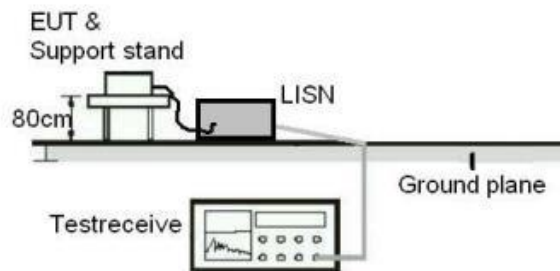
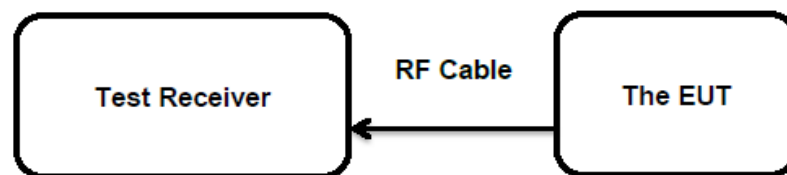


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203
RSS-Gen Clause 6.8

According to the manufacturer declared, the EUT has an Integral Antenna, permanent attachment and no consideration of replacement, refer to section 3.2 for details.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT:
Pass
Test Specification

Test standard	:	FCC Part 15.247(b)(3) RSS-247 Clause 6.3.2
Basic standard	:	ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024
Limits	:	< 1.0 W
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2026-04-30 to 2026-05-09
Input voltage	:	Fully charged battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.6 °C
Relative humidity	:	52 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Conducted Output Power, Bluetooth LE

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
Bluetooth LE (1 Mbps)	2402	-3.56	0.0004	< 1.0
	2440	-3.10	0.0005	
	2480	-3.49	0.0004	
Bluetooth LE (2 Mbps)	2402	-3.77	0.0004	
	2440	-3.58	0.0004	
	2480	-3.85	0.0004	
Max. Measured Value		-3.10	0.0005	

Max. e.i.r.p. = -3.10 dBm + 5.08 dB_i = 1.98 dBm, which is less than 36 dBm = 4 W.

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G): 5.08 dB_i
e.i.r.p. = P_(Peak power) + G, which is far below the 4 W

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5.1.3 Conducted Power Spectral Density

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(e) RSS-247 Clause 6.3.1
Basic standard	: ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024
Limits	: < 8 dBm / 3kHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-04-30 to 2026-05-09
Input voltage	: Fully charged battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.6 °C
Relative humidity	: 52 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

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5.1.4 6dB Bandwidth

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(a)(2) RSS-247 Clause 6.3.1
Basic standard	: ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024
Limits	: > 500 kHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-04-30 to 2026-05-09
Input voltage	: Fully charged battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.6 °C
Relative humidity	: 52 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

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5.1.5 99% Bandwidth

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(a) RSS-Gen Clause 6.7
Basic standard	: ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024
Limits	: Within assigned band 2400-2483.5MHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-04-30 to 2026-05-09
Input voltage	: Fully charged battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.6 °C
Relative humidity	: 52 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

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5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(d) RSS-247 Clause 6.6
Basic standard	: ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-04-30 to 2026-05-09
Input voltage	: Fully charged battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.6 °C
Relative humidity	: 52 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix A.

5.1.7 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 2.4
Basic standard	: ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024
Limits	: Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Section 8.9 & 8.10
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2026-05-07
Input voltage	: Fully charged battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test results
Relative humidity	: Refer to test results
Atmospheric pressure	: 101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix A.

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5.1.8 Conducted Emission on AC Mains

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.207(a) RSS-Gen Section 8.8
Basic standard	: ANSI C63.10:2020, ANSI C63.10:2020+Cor. 1:2023+ C63.10a:2024
Frequency range	: 0.15 – 30MHz
Classification	: Class B
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-04 - 2026-05-09
Input voltage	: AC 120V, 60Hz
Operation mode	: B
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix B.

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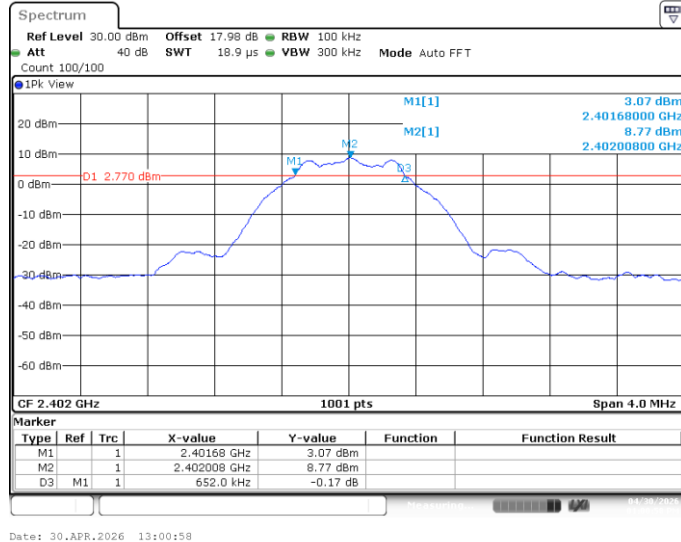
Appendix A.1: Test Results of 6dB Bandwidth

Test Result

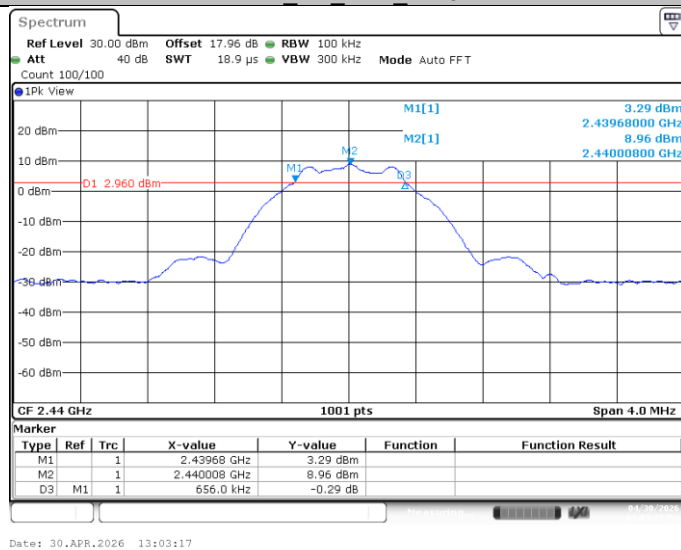
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.65	2401.68	2402.33	0.5	PASS
		2440	0.66	2439.68	2440.34	0.5	PASS
		2480	0.66	2479.68	2480.33	0.5	PASS
BLE_2M	Ant1	2402	1.11	2401.46	2402.57	0.5	PASS
		2440	0.96	2439.45	2440.41	0.5	PASS
		2480	1.10	2479.45	2480.55	0.5	PASS

Test Graphs

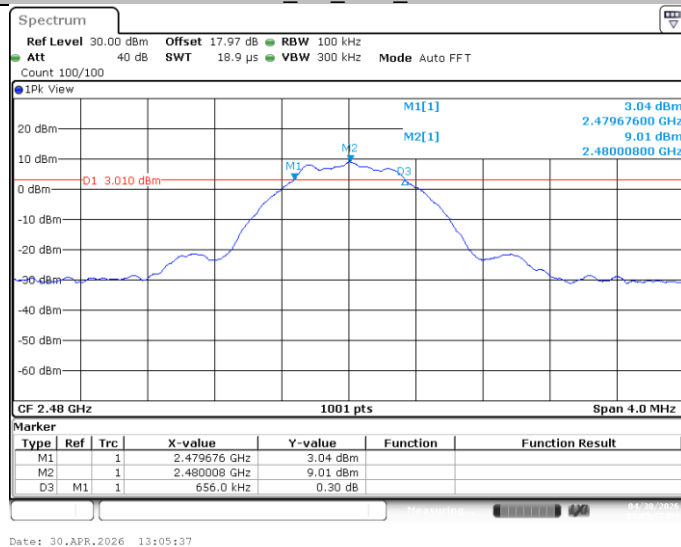
BLE 1M Ant1 2402



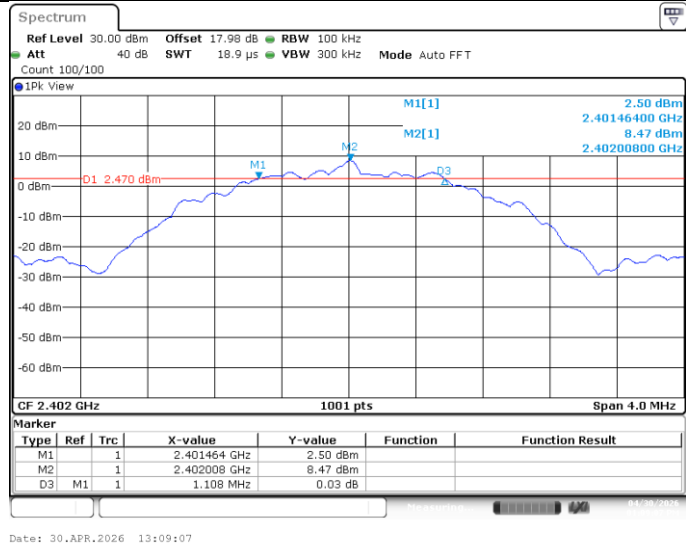
BLE 1M Ant1 2440



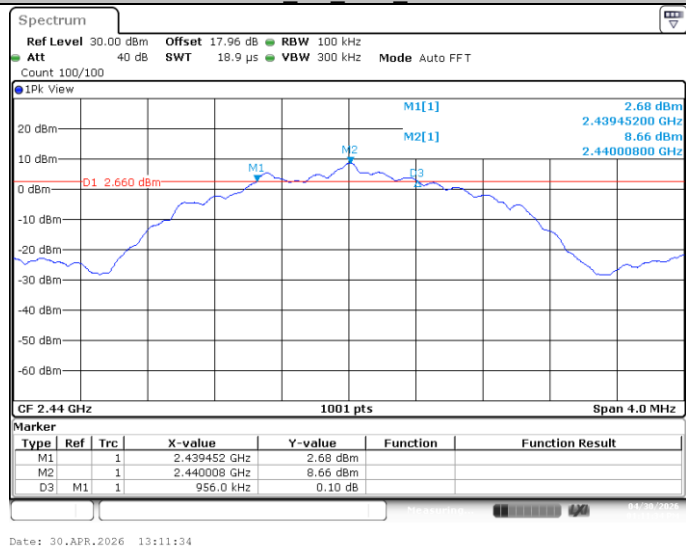
BLE 1M Ant1 2480



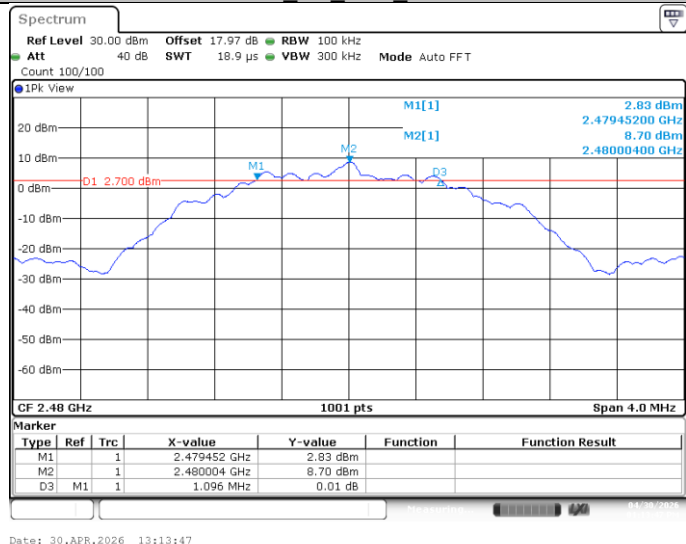
BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



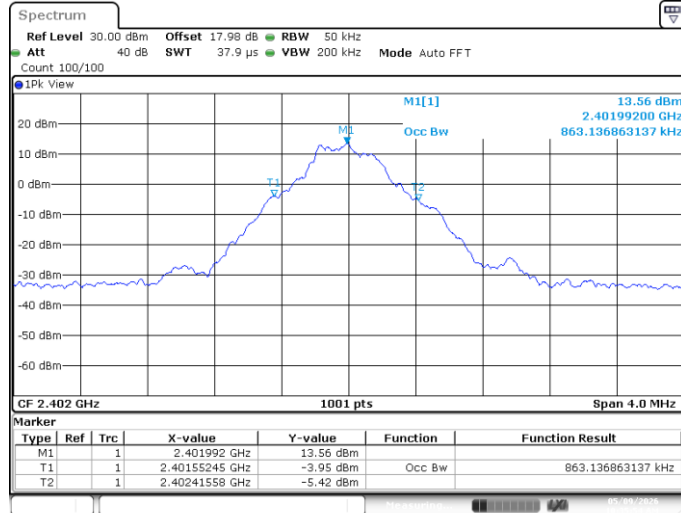
Appendix A.2: Test Results of 99% Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.86314	2401.5524	2402.4156	---	PASS
		2440	0.87113	2439.5445	2440.4156	---	PASS
		2480	0.87113	2479.5405	2480.4116	---	PASS
BLE_2M	Ant1	2402	1.6983	2401.1249	2402.8232	---	PASS
		2440	1.7063	2439.1209	2440.8272	---	PASS
		2480	1.7103	2479.1169	2480.8272	---	PASS

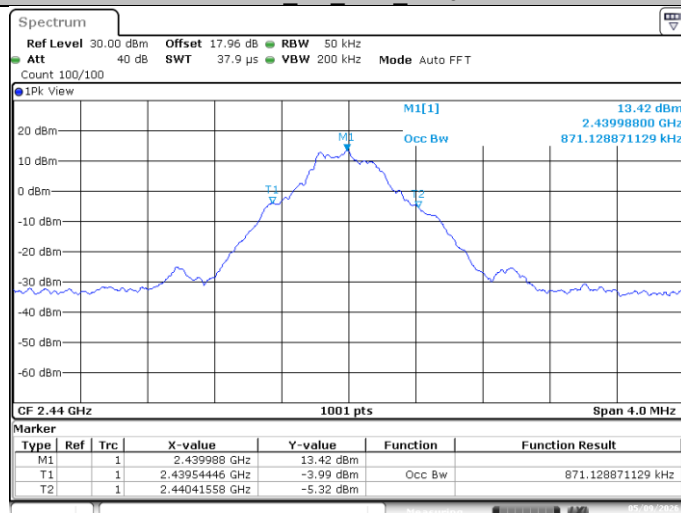
Test Graphs

BLE 1M Ant1 2402



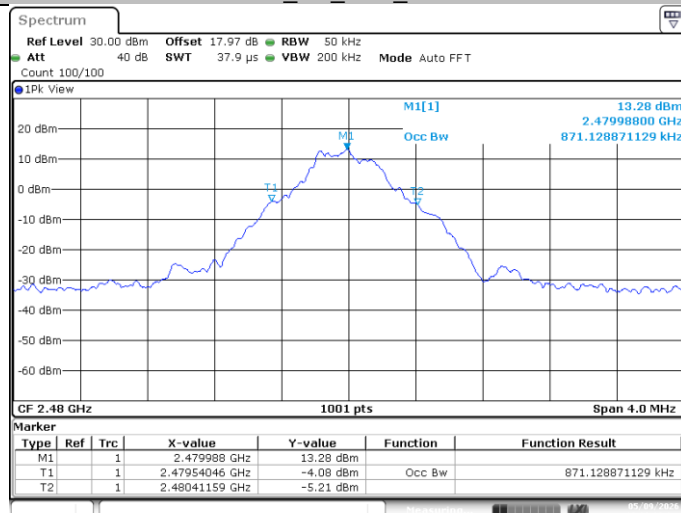
Date: 9.MAY.2026 10:35:55

BLE 1M Ant1 2440



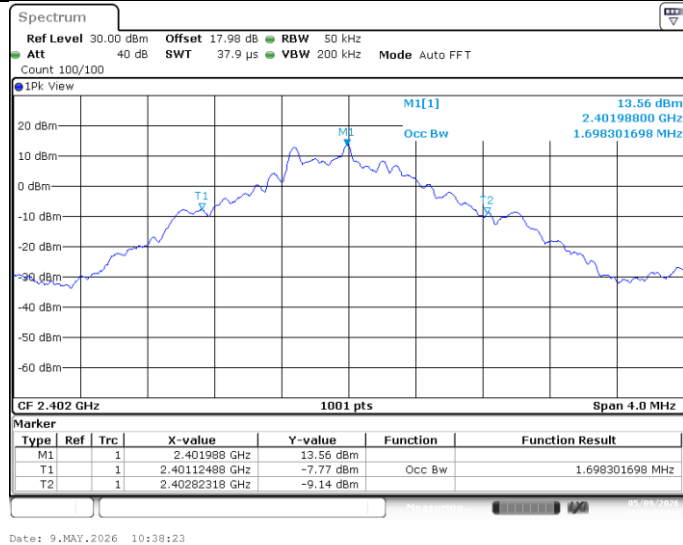
Date: 9.MAY.2026 10:37:28

BLE 1M Ant1 2480

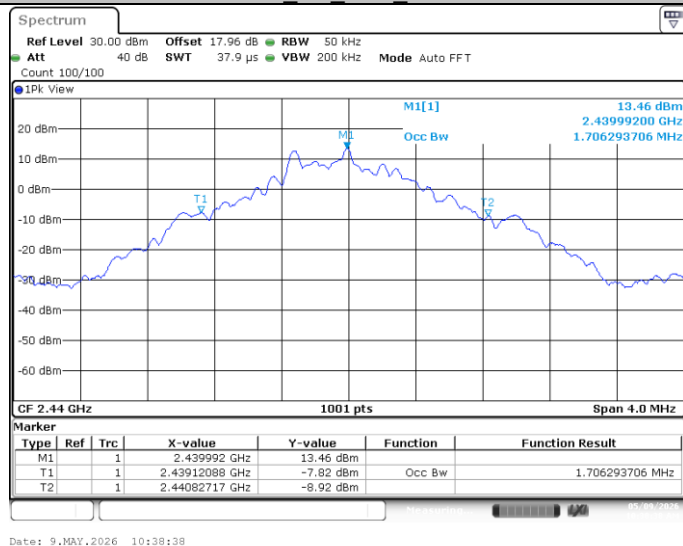


Date: 9.MAY.2026 10:38:02

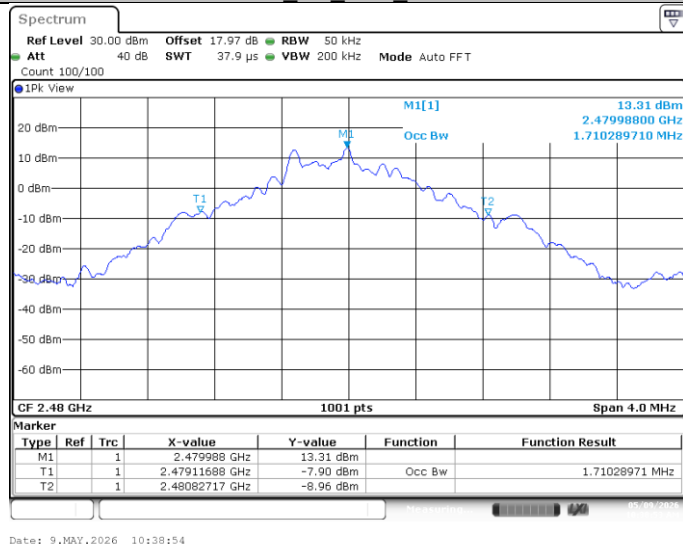
BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



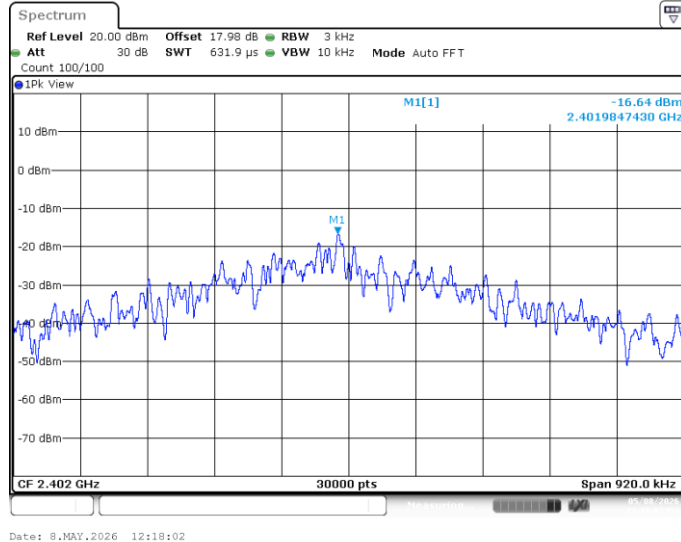
Appendix A.3: Test Results of Conducted Power Spectral Density

Test Result

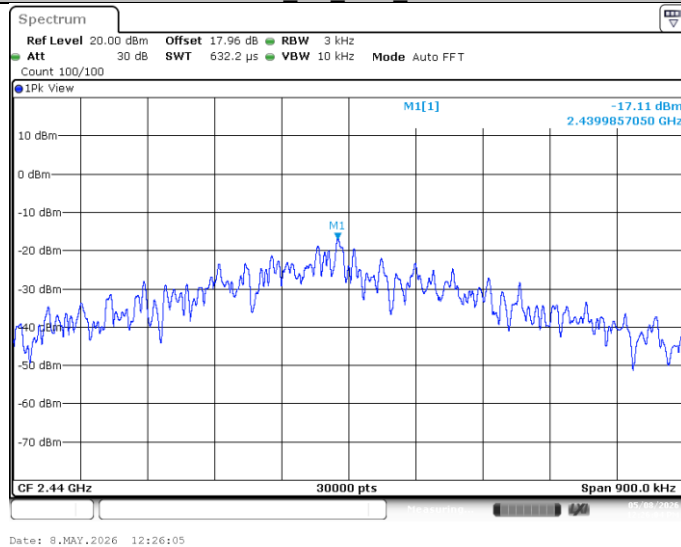
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.64	≤8.00	PASS
		2440	-17.11	≤8.00	PASS
		2480	-16.86	≤8.00	PASS
BLE_2M	Ant1	2402	-17.69	≤8.00	PASS
		2440	-17.90	≤8.00	PASS
		2480	-18.23	≤8.00	PASS

Test Graphs

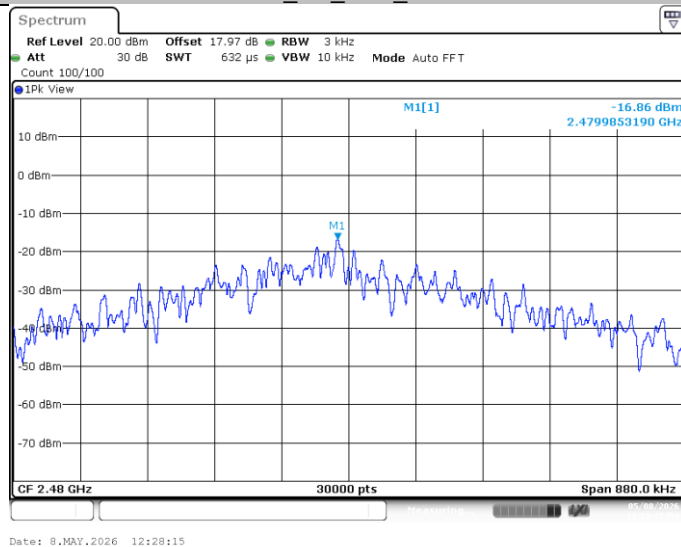
BLE_1M_Ant1_2402



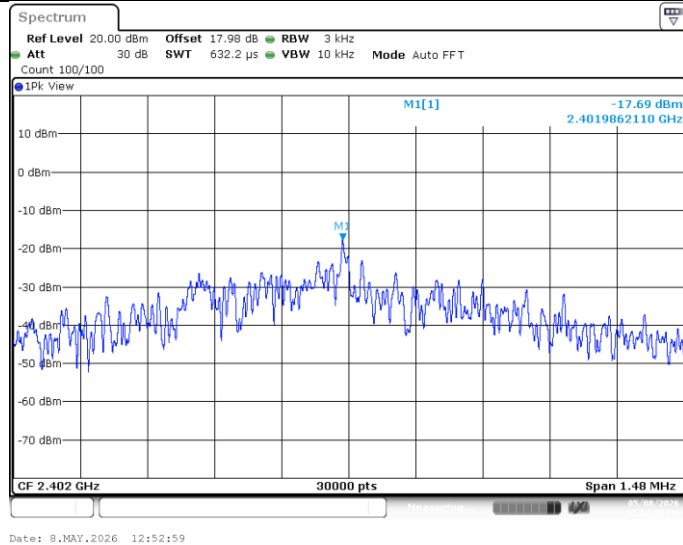
BLE_1M_Ant1_2440



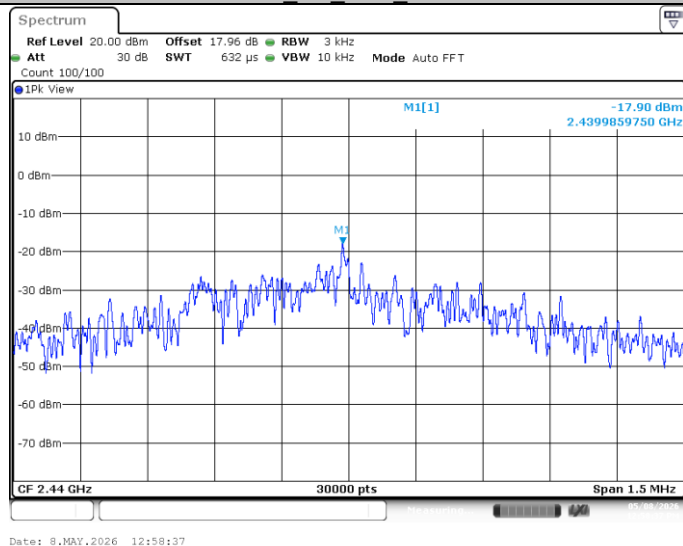
BLE_1M_Ant1_2480



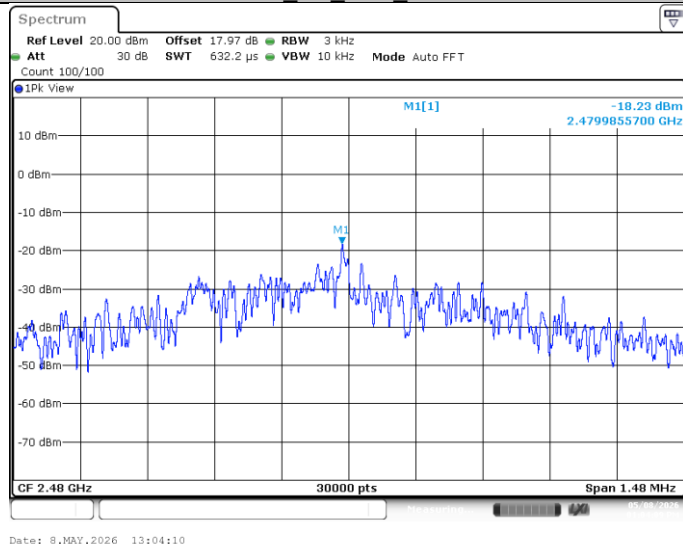
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



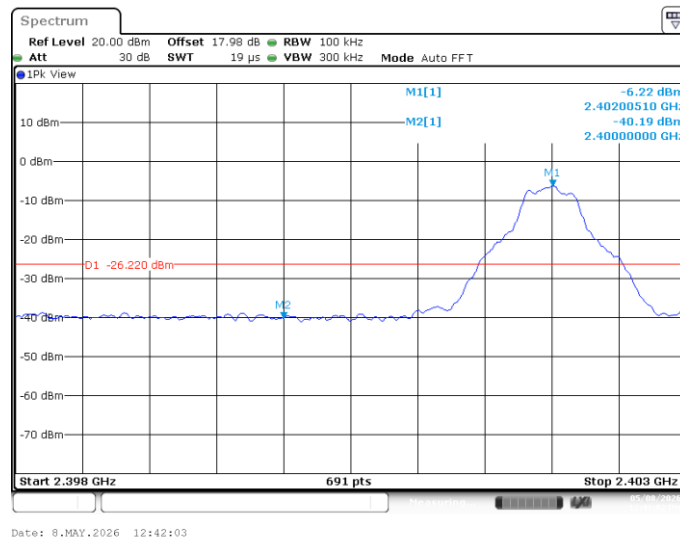
BLE_2M_Ant1_2480



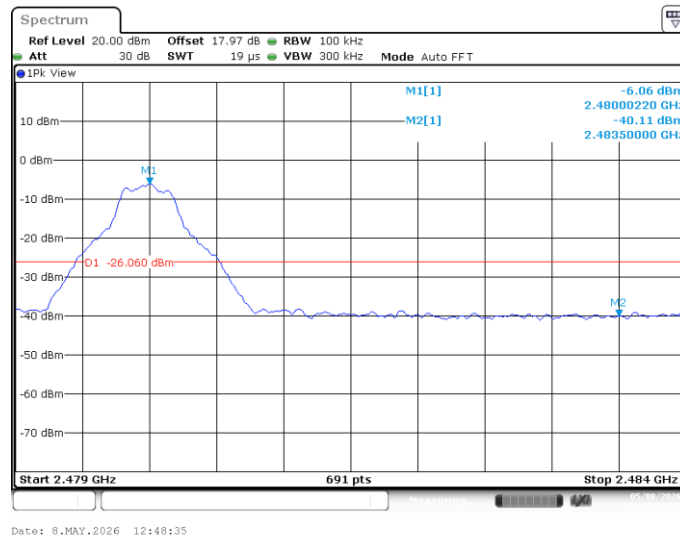
Appendix A.4: Test Results of Band Edge Measurements

Bluetooth LE, 1Mbps

Low Channel

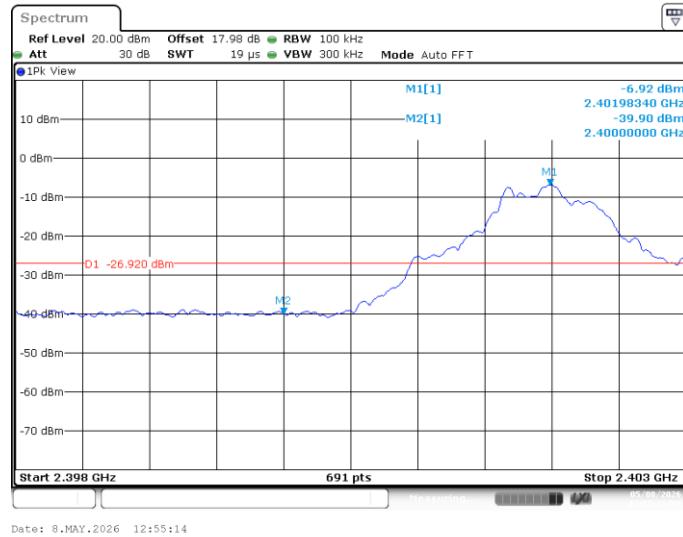


High Channel

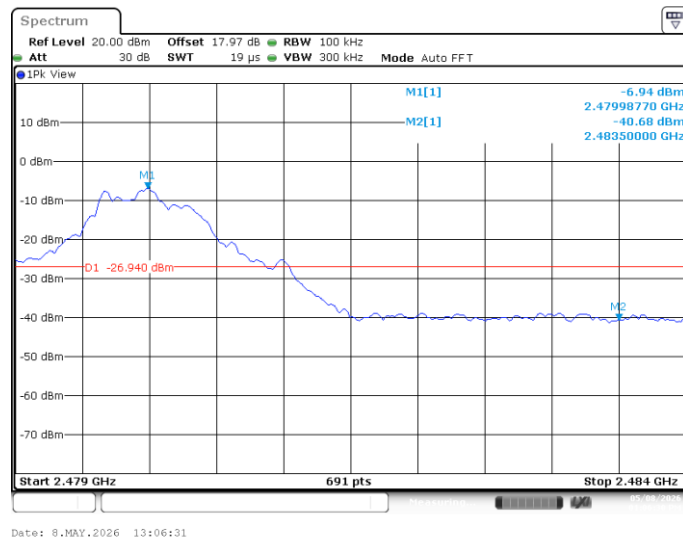


Bluetooth LE, 2Mbps

Low Channel



High Channel



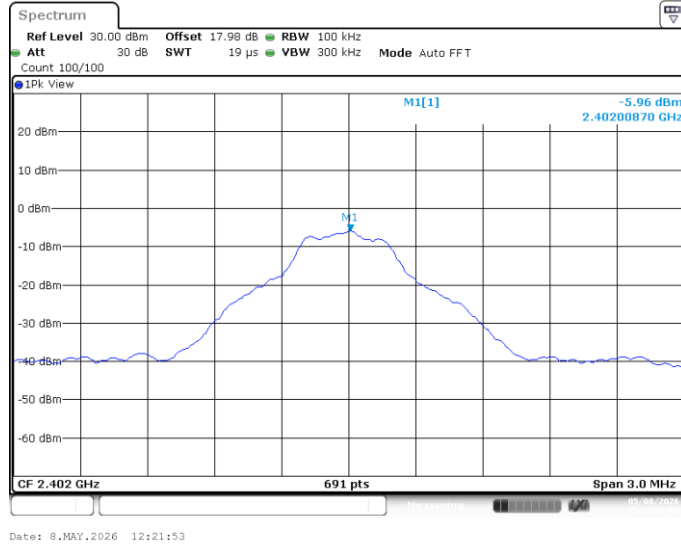
Appendix A.5: Test Results of Conducted Spurious Emission

Test Result

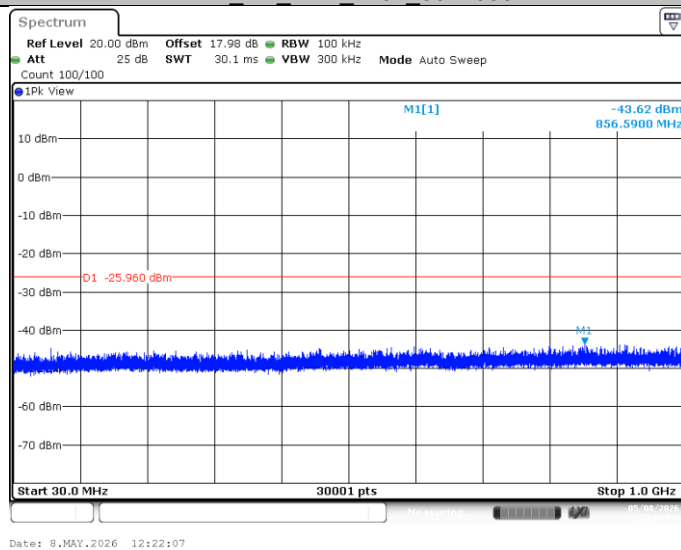
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-5.96	-5.96	---	PASS
			30~1000	-5.96	-43.62	≤-25.96	PASS
			1000~26500	-5.96	-37.64	≤-25.96	PASS
		2440	Reference	-6.05	-6.05	---	PASS
			30~1000	-6.05	-43.77	≤-26.05	PASS
			1000~26500	-6.05	-37.72	≤-26.05	PASS
		2480	Reference	-6.01	-6.01	---	PASS
			30~1000	-6.01	-43.87	≤-26.01	PASS
			1000~26500	-6.01	-37.54	≤-26.01	PASS
BLE_2M	Ant1	2402	Reference	-6.79	-6.79	---	PASS
			30~1000	-6.79	-43.59	≤-26.79	PASS
			1000~26500	-6.79	-38	≤-26.79	PASS
		2440	Reference	-6.83	-6.83	---	PASS
			30~1000	-6.83	-44.11	≤-26.83	PASS
			1000~26500	-6.83	-37.76	≤-26.83	PASS
		2480	Reference	-7.05	-7.05	---	PASS
			30~1000	-7.05	-43.39	≤-27.05	PASS
			1000~26500	-7.05	-36.51	≤-27.05	PASS

Test Graphs

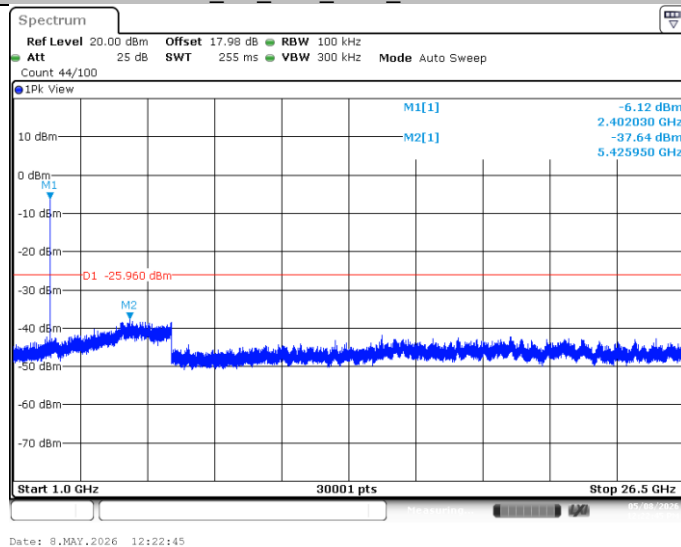
BLE 1M Ant1 2402 0~Reference



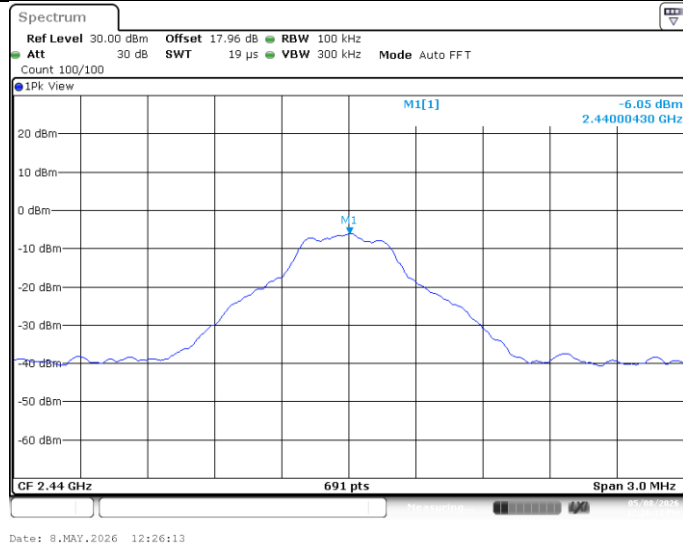
BLE 1M Ant1 2402 30~1000



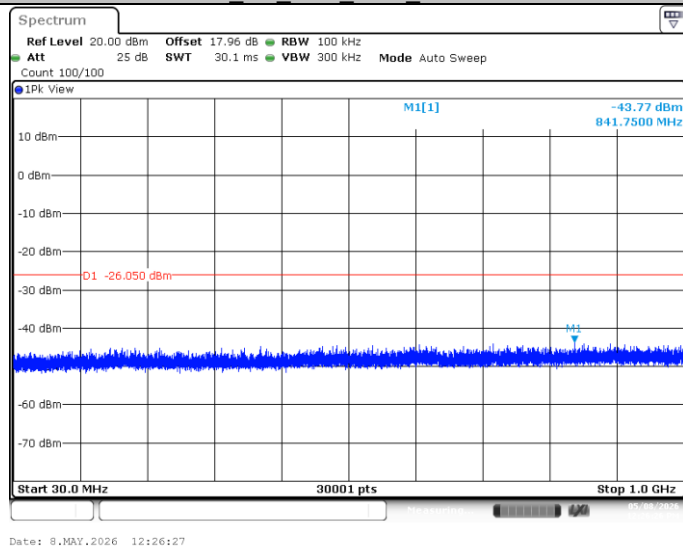
BLE 1M Ant1 2402 1000~26500



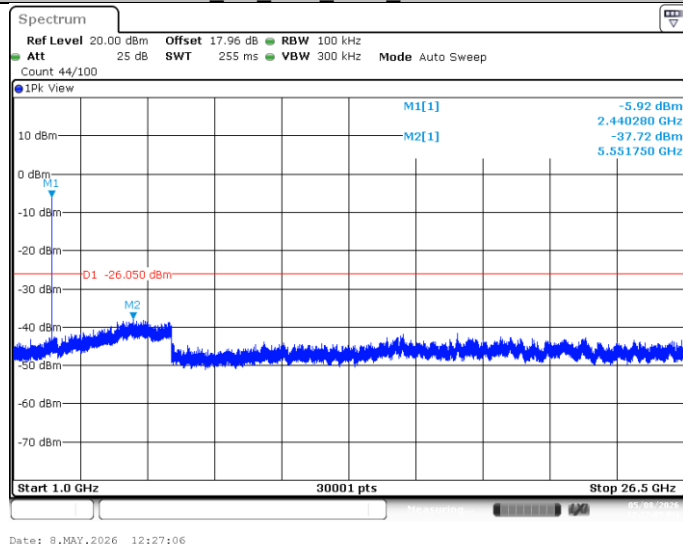
BLE_1M_Ant1_2440_0~Reference



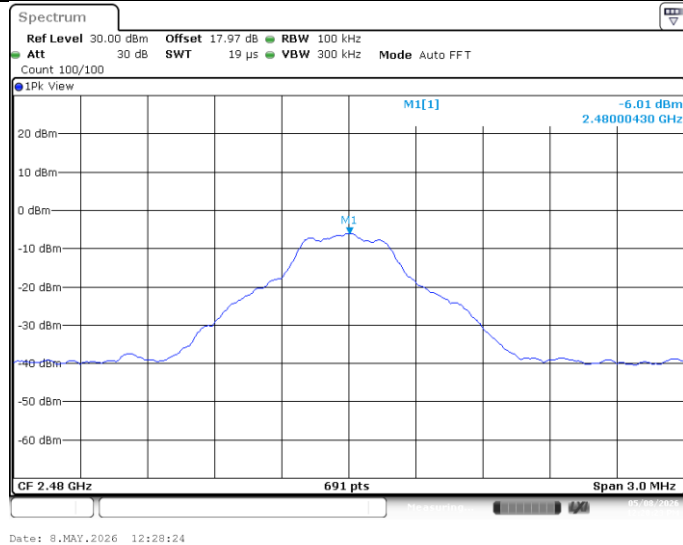
BLE_1M_Ant1_2440_30~1000



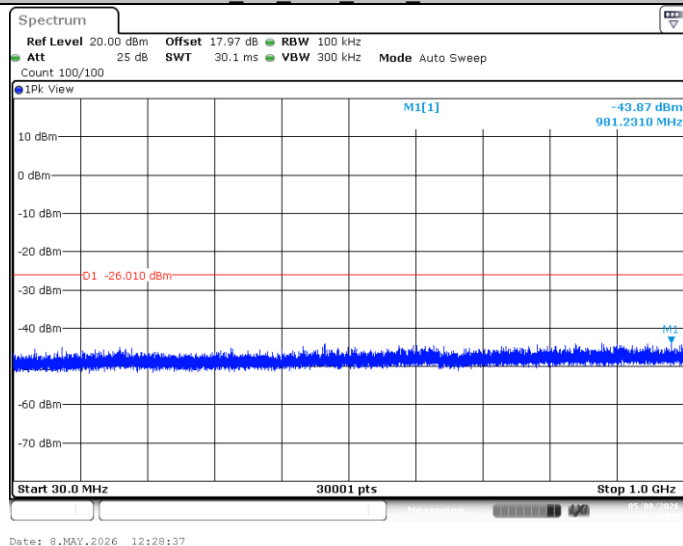
BLE_1M_Ant1_2440_1000~26500



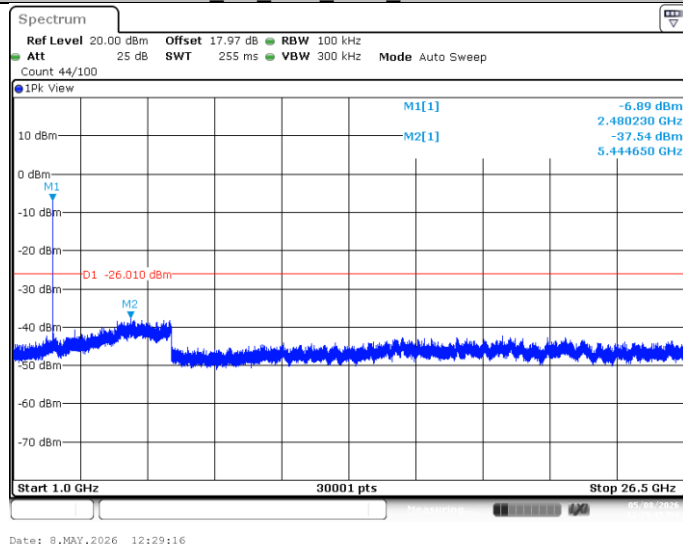
BLE_1M_Ant1_2480_0~Reference



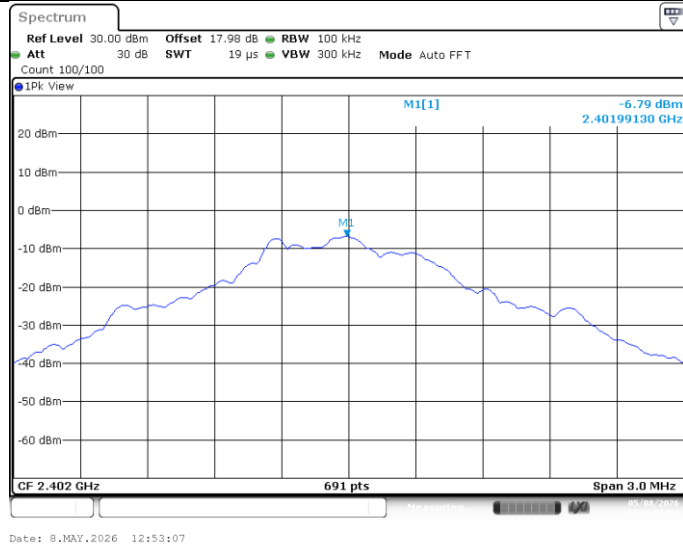
BLE_1M_Ant1_2480_30~1000



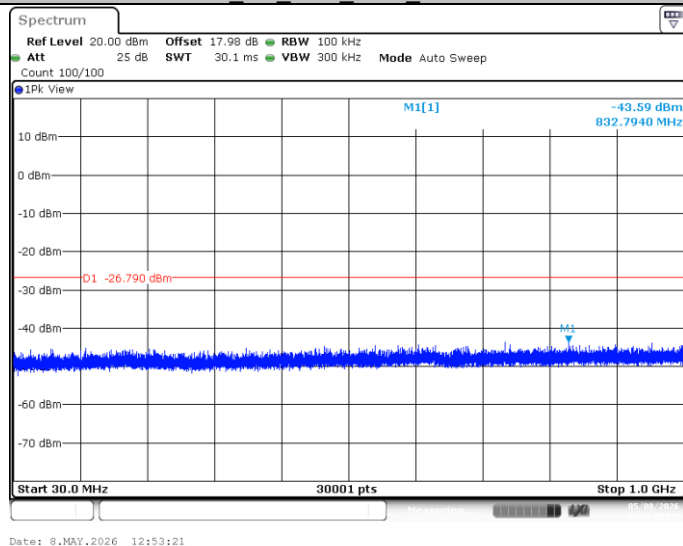
BLE_1M_Ant1_2480_1000~26500



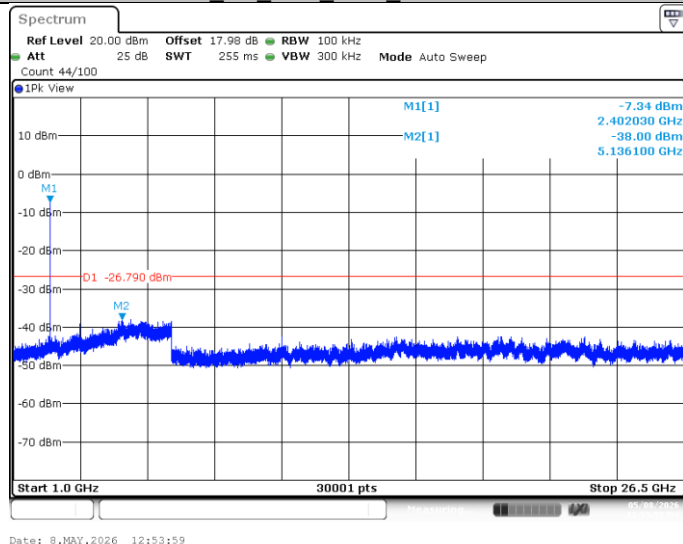
BLE 2M Ant1 2402 0~Reference



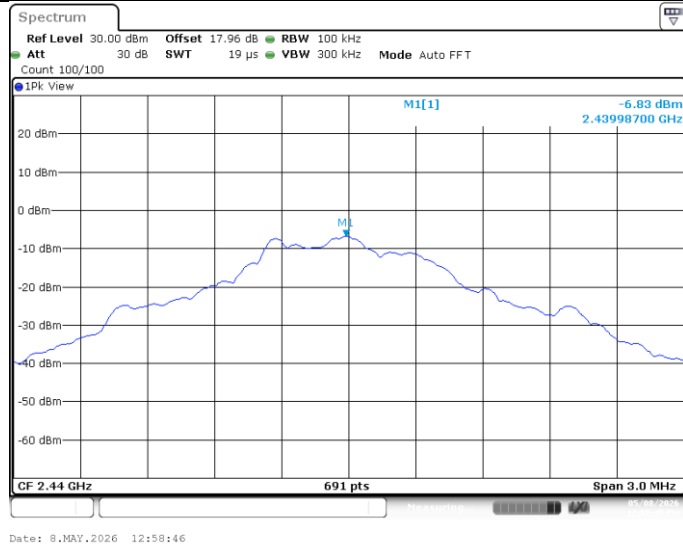
BLE 2M Ant1 2402 30~1000



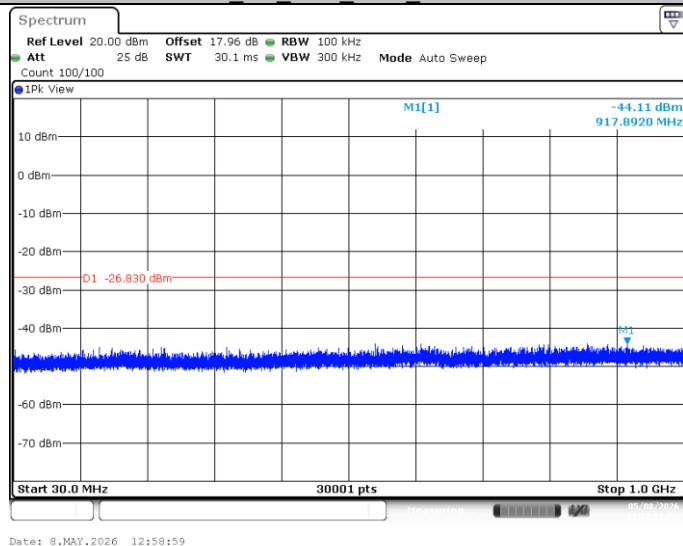
BLE 2M Ant1 2402 1000~26500



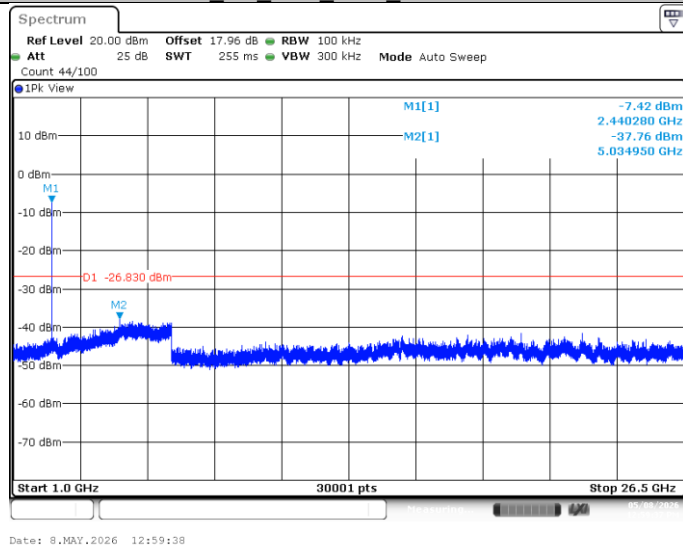
BLE 2M Ant1 2440 0~Reference



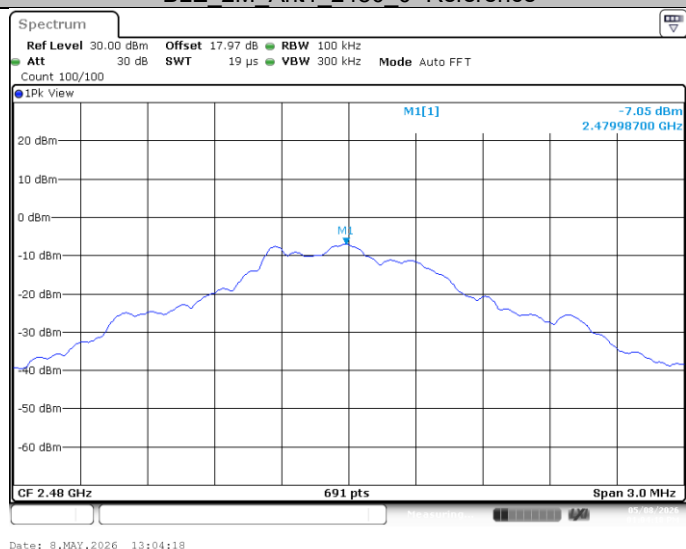
BLE 2M Ant1 2440 30~1000



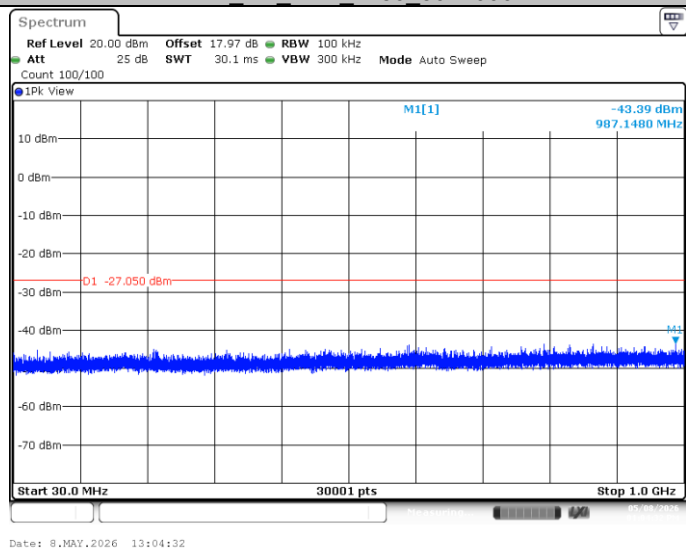
BLE 2M Ant1 2440 1000~26500



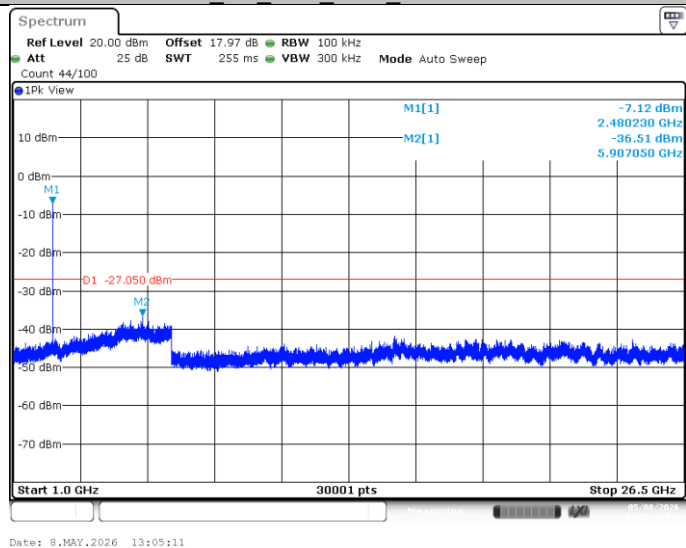
BLE	2M	Ant1	2480	0~Reference
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BLE 2M Ant1 2480 30~1000



BLE	2M	Ant1	2480	1000~26500
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Appendix A.6: Test Results of Radiated Spurious Emissions

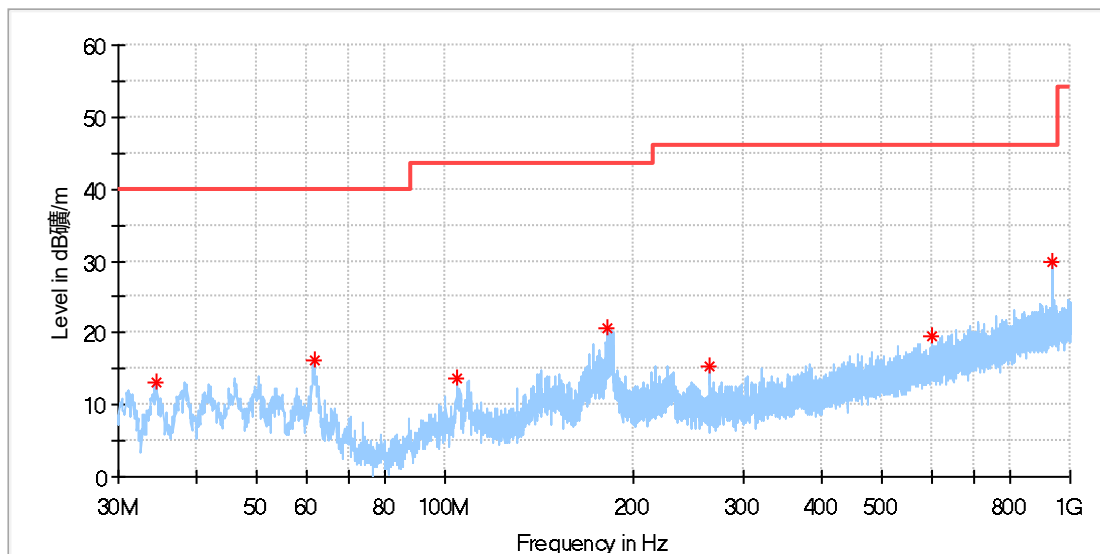
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30MHz - 1GHz

EUT Information

EUT Name: amaran Wireless Desktop Microphone
Model: amaran Mic
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 27228259/A004245875-002
Test Voltage: Battery
Remark: Temp 22.8°C Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

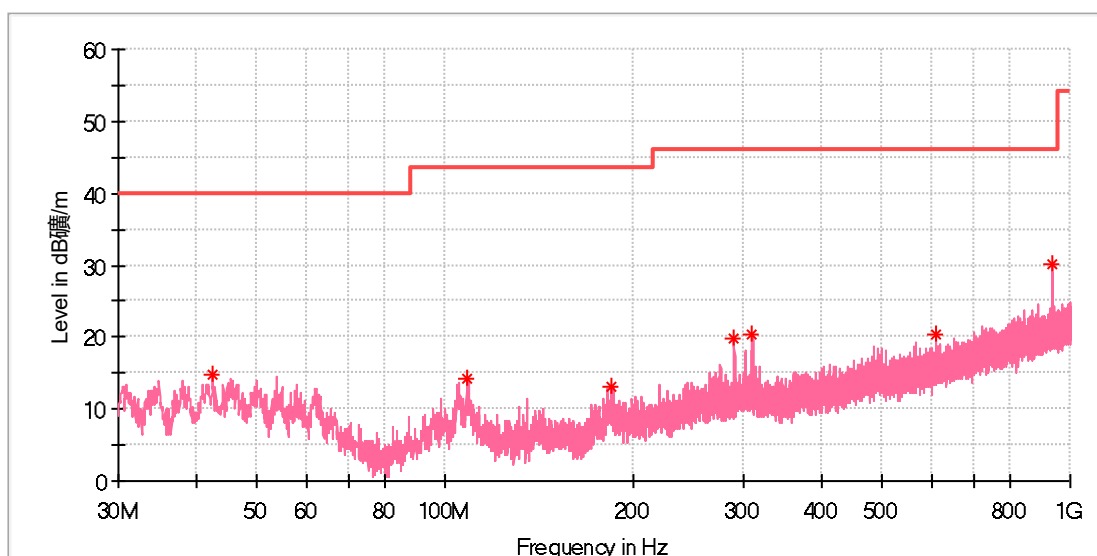
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.526667	13.00	40.00	27.00	100.0	H	102.0	-22.1
61.686667	16.28	40.00	23.72	100.0	H	0.0	-19.5
104.743889	13.67	43.50	29.83	100.0	H	45.0	-18.9
181.858889	20.53	43.50	22.97	100.0	H	247.0	-20.4
264.632222	15.36	46.00	30.64	100.0	H	25.0	-17.0
601.330000	19.51	46.00	26.49	100.0	H	175.0	-9.6
938.405000	29.94	46.00	16.06	100.0	H	91.0	-4.4

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: amaran Wireless Desktop Microphone
Model: amaran Mic
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 27228259/A004245875-002
Test Voltage: Battery
Remark: Temp 22.8°C Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
42.394444	14.89	40.00	25.11	100.0	V	282.0	-19.6
108.354444	14.14	43.50	29.36	100.0	V	282.0	-19.1
184.445556	13.25	43.50	30.25	100.0	V	257.0	-20.2
290.337222	19.75	46.00	26.25	100.0	V	344.0	-16.5
310.330000	20.26	46.00	25.74	100.0	V	150.0	-16.0
607.904444	20.45	46.00	25.55	100.0	V	273.0	-9.5
938.458889	30.03	46.00	15.97	100.0	V	132.0	-4.4

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.000000	100.000000	100.000000	100.000000	100.000000	100.000000		100.000000	100.000000

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.000000	100.000000	100.000000	100.000000	100.000000	100.000000		100.000000	100.000000

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.750000	120.000000	110.000000	120.000000	0.000000	300.000000		0.000000	

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.7	122.5	122.5	122.5	0.0	30.0	0	0	0

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.0	100.0	100.0	100.0	100.0	100.0		100.0	

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.75	122.5	122.5	122.5	0.0	100.0		0.0	

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.7	122.5	122.5	122.5	0.0	30.0	0	0	0

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.0	100.0	100.0	100.0	100.0	100.0		100.0	

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.7	122.5	122.5	122.5	0	100	V	135	0

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.750000	120.000000	110.000000	120.000000	0.000000	300.000000		0.000000	

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.7	122.5	122.5	122.5	0.0	30.0	0	0	0

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.7	122.5	122.5	122.5	0.0	30.0	V	180.0	0.0

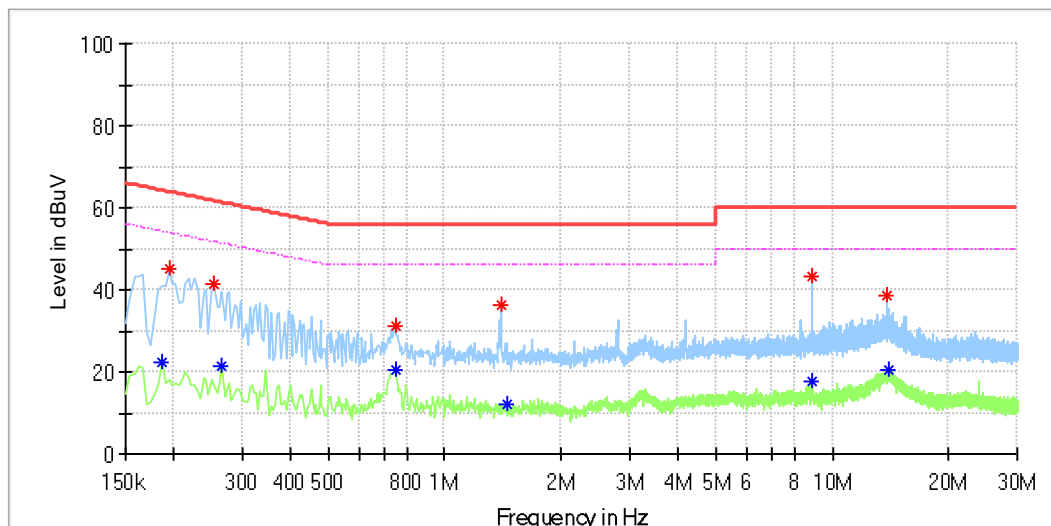
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
93.750000	120.000000	110.000000	120.000000	0.000000	300.000000		0.000000	

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.000000	100.000000	100.000000	100.000000	100.000000	100.000000		100.000000	100.000000

Appendix A.8: Test Results of Conducted Emission on AC Mains

EUT Information

EUT Name:	amaran Wireless Desktop Microphone
Order Number:	27228259(P02359862)
Model:	amaran Mic
Test Mode:	Normal working connected with computer via wireless and charged via USB-C port
Test Voltage:	AC 120V/60Hz
Standard:	FCC PART 15
Test By:/Review By:	Charron Chen / Charlie Zha
Tem./Hum./Pressure:	24.2°C/51.0%/101kPa
Remark:	SR 3



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.186	---	22.2	54.21	31.98	L1	9.7
0.194	44.9	---	63.86	18.96	L1	9.7
0.254	41.3	---	61.63	20.29	L1	9.7
0.266	---	21.4	51.24	29.85	L1	9.6
0.746	---	20.4	46.00	25.62	L1	9.7
0.746	31.0	---	56.00	25.00	L1	9.7
1.394	36.1	---	56.00	19.94	L1	9.6
1.442	---	12.1	46.00	33.93	L1	9.6
8.898	---	17.7	50.00	32.25	L1	10.0
8.898	43.3	---	60.00	16.67	L1	10.0
13.874	38.7	---	60.00	21.30	L1	9.6
13.966	---	20.4	50.00	29.58	L1	9.6

Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
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