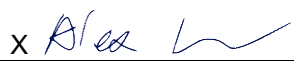


Prüfbericht-Nr.: Test report no.:	CN25S1H1 002	Auftrags-Nr.: Order no.:	168586829	Page 1 of 22 Seite 1 von 22
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2025-11-28	
Auftraggeber: Client:	Harman International Industries, Inc 8500 Balboa Blvd, Northridge, California, 91329, United States			
Prüfgegenstand: Test item:	21" BLUETOOTH SOUNDBAR AUDIO SYSTEM			
Bezeichnung / Typ-Nr.: Identification / Type no.:	RALLYBAR 2 (Trademark: JBL)			
Auftrags-Inhalt: Order content:	Type test			
Prüfgrundlage: Test specification:	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.209		RSS-247 Issue 4 July 24, 2025 RSS-Gen Issue 5 February 2021	
Wareneingangsdatum: Date of sample receipt:	2025-12-04	Refer to photos document		
Prüfmuster-Nr.: Test sample no.:	A004155373			
Prüfzeitraum: Testing period:	2025-12-05 – 2025-12-31			
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:			genehmigt von: authorized by:	
Datum: Date:	2026-03-05 Signed by: Harry W. C. Wu		Ausstellungsdatum: Issue date:	2026-03-05 Signed by: Alex Lan
Stellung / Position:	Project Manager		Stellung / Position:	Authorizer
Sonstiges / Other:	FCC ID: APIRALLYBAR2 IC: 6132A-RALLYBAR2 HVIN: RALLYBAR 2			
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. <i>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.</i>				

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Page 2 of 22
Seite 2 von 22

Remarks
Anmerkungen

1	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>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.</i> <i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i>
2	As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. <i>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</i>
3	Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report. <i>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>
4	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 115:2021, 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>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 115:2021, 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>

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 3 von 22
Page 3 of 22

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 99%dB BANDWIDTH

RESULT: Pass

5.1.5 6dB BANDWIDTH

RESULT: Pass

5.1.6 FREQUENCY STABILITY

RESULT: Pass

5.1.7 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.8 RADIATED SPURIOUS EMISSION

RESULT: Pass

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 4 von 22
Page 4 of 22

Contents

1	GENERAL REMARKS	5
1.1	COMPLEMENTARY MATERIALS	5
2	TEST SITES	5
2.1	TEST FACILITIES	5
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	6
2.3	TRACEABILITY	7
2.4	CALIBRATION	7
2.5	MEASUREMENT UNCERTAINTY.....	7
2.6	LOCATION OF ORIGINAL DATA.....	7
2.7	STATUS OF FACILITY USED FOR TESTING.....	7
3	GENERAL PRODUCT INFORMATION	8
3.1	PRODUCT FUNCTION AND INTENDED USE.....	8
3.2	RATINGS AND SYSTEM DETAILS	8
3.3	INDEPENDENT OPERATION MODES	10
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	10
3.5	SUBMITTED DOCUMENTS.....	10
4	TEST SET-UP AND OPERATION MODES	11
4.1	PRINCIPLE OF CONFIGURATION SELECTION	11
4.2	TEST OPERATION AND TEST SOFTWARE.....	11
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	11
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE	11
4.5	TEST SETUP DIAGRAM	12
5	TEST RESULTS	14
5.1	TRANSMITTER REQUIREMENT & TEST SUITES	14
5.1.1	<i>Antenna Requirement</i>	<i>14</i>
5.1.2	<i>Maximum Peak Conducted Output Power.....</i>	<i>15</i>
5.1.3	<i>Conducted Power Spectral Density</i>	<i>16</i>
5.1.4	<i>99%dB Bandwidth</i>	<i>17</i>
5.1.5	<i>6dB Bandwidth</i>	<i>18</i>
5.1.6	<i>Frequency stability</i>	<i>19</i>
5.1.7	<i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth</i>	<i>20</i>
5.1.8	<i>Radiated Spurious Emission</i>	<i>21</i>
6	PHOTOGRAPHS OF THE TEST SET-UP	22
7	LIST OF TABLES.....	22

Prüfbericht-Nr.: CN25S1H1 002
*Test report no.:*Seite 5 von 22
Page 5 of 22

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: Photographs of the Test Set-up

Appendix B: Test Results of Bluetooth Low Energy.

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

FCC Registration No.: CN1260

IC Registration No.: 25069 and the CAB identifier is CN0078.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Wireless Connectivity Tester	R&S	CMW270	101375	22.09.2026
Signal Analyzer	R&S	FSV 40	101441	22.09.2026
Vector Signal Generator	R&S	SMBV100A	263301	29.10.2026
Signal Generator	R&S	SMB100A	115186	22.09.2026
OSP	R&S	OSP 150	101017	29.10.2026
Control PC	DELL	OptiPlex 7050	FTJZ9P2	N/A
Test Software	R&S	WMS32 (V11.00.00)	N/A	N/A
Power Meter	R&S	NRP2	107105	29.10.2026
Power Sensor	R&S	NRP-Z81	105677	22.09.2026
High Low Temperature Test Chamber	KOWINTEST	TH-30FJX	KW-21040497	22.09.2026
Shielding Room	Albatross	SR1	APC17151-SR1	13.09.2027
Unwanted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	21.09.2026
Signal Analyzer	R&S	FSV 40	101439	21.09.2026
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	21.09.2026
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	21.09.2026
Amplifier	R&S	SCU-18F	180070	21.09.2026
Amplifier	R&S	SCU40A	100475	21.09.2026
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	27.09.2026
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	27.09.2026
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	27.09.2026
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	27.09.2026
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	13.09.2027

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:Seite 7 von 22
Page 7 of 22

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.

Parameter	Uncertainty (k=2)
Occupied Channel Bandwidth	± 2.08 %
RF output power, conducted	± 0.99 dB
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	± 4.17 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) file for certification follow-up purposes.

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 EUT is a 21" BLUETOOTH SOUNDBAR AUDIO SYSTEM, and it supports Bluetooth dual mode technology.

The Classical Bluetooth and Bluetooth low energy can't transmit at the same time.

For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	21" BLUETOOTH SOUNDBAR AUDIO SYSTEM
Type Designation	RALLYBAR 2
Trademark	JBL
FCC ID	APIRALLYBAR2
IC	6132A-RALLYBAR2
HVIN	RALLYBAR 2
Extreme Temperature Range	0°C to +70°C
Operating Voltage	DC 12V, 20A
Technical Specification of Classical Bluetooth	
Operating Frequency band	2402 ~ 2480 MHz
Channel Number	79 channels
Channel separation	1MHz
Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK
Antenna Type	FPC antenna
Antenna Gain	2.36 dBi (Provided by the Client)
Technical Specification of Bluetooth Low Energy	
Operating Frequency band	2402 – 2480 MHz for data rate 1Mbps 2404 – 2478 MHz for data rate 2Mbps
Channel Number	40 channels for data rate 1Mbps 38 channels for data rate 2Mbps
Channel separation	2MHz
Data rate	1Mbps, 2Mbps
Modulation	GFSK
Antenna Type	FPC antenna
Antenna Gain	2.36 dBi (Provided by the Client)

Table 3: RF Channel and Frequency of Classic Bluetooth

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	2402.00	20	2422.00	40	2442.00	60	2462.00
01	2403.00	21	2423.00	41	2443.00	61	2463.00
02	2404.00	22	2424.00	42	2444.00	62	2464.00
03	2405.00	23	2425.00	43	2445.00	63	2465.00
04	2406.00	24	2426.00	44	2446.00	64	2466.00
05	2407.00	25	2427.00	45	2447.00	65	2467.00
06	2408.00	26	2428.00	46	2448.00	66	2468.00
07	2409.00	27	2429.00	47	2449.00	67	2469.00
08	2410.00	28	2430.00	48	2450.00	68	2470.00
09	2411.00	29	2431.00	49	2451.00	69	2471.00
10	2412.00	30	2432.00	50	2452.00	70	2472.00
11	2413.00	31	2433.00	51	2453.00	71	2473.00
12	2414.00	32	2434.00	52	2454.00	72	2474.00
13	2415.00	33	2435.00	53	2455.00	73	2475.00
14	2416.00	34	2436.00	54	2456.00	74	2476.00
15	2417.00	35	2437.00	55	2457.00	75	2477.00
16	2418.00	36	2438.00	56	2458.00	76	2478.00
17	2419.00	37	2439.00	57	2459.00	77	2479.00
18	2420.00	38	2440.00	58	2460.00	78	2480.00
19	2421.00	39	2441.00	59	2461.00	--	--

Table 4: RF Channel and Frequency of Bluetooth Low Energy

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	2402.00	10	2422.00	20	2442.00	30	2462.00
01	2404.00	11	2424.00	21	2444.00	31	2464.00
02	2406.00	12	2426.00	22	2446.00	32	2466.00
03	2408.00	13	2428.00	23	2448.00	33	2468.00
04	2410.00	14	2430.00	24	2450.00	34	2470.00
05	2412.00	15	2432.00	25	2452.00	35	2472.00
06	2414.00	16	2434.00	26	2454.00	36	2474.00
07	2416.00	17	2436.00	27	2456.00	37	2476.00
08	2418.00	18	2438.00	28	2458.00	38	2478.00
09	2420.00	19	2440.00	29	2460.00	39	2480.00

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth LE transmitting mode
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. On, Bluetooth connecting mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|----------------------------------|------------------|
| - Application Form | - Photo Document |
| - Block Diagram | - Schematics |
| - FCC/IC Label and Location Info | - User Manual |
| - Operation Description | |

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 testing were performed according to the procedures in ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N or Rating
Laptop	Lenovo	T480	PF-16A6N8
DC Power Supply	Keysight	E3642A	MY61276100

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 30MHz)

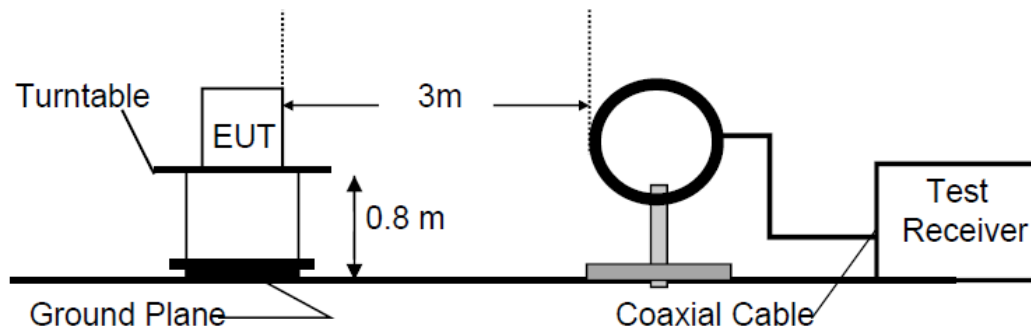


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

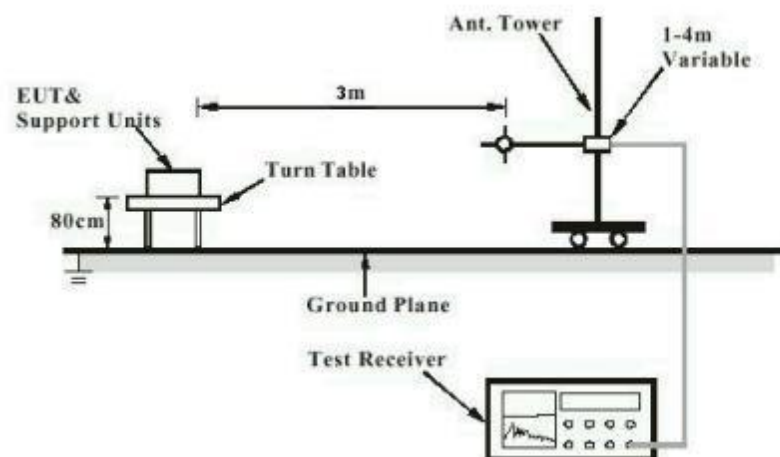


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

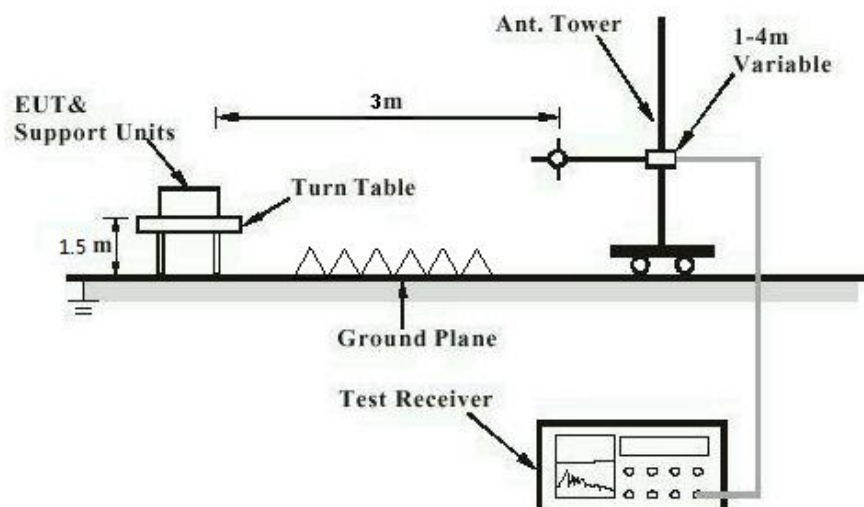
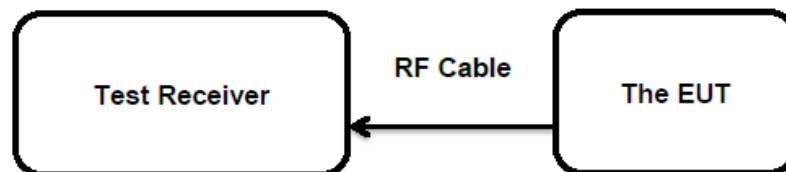


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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 6.7
Limit	:	the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has one FPC antenna, the directional gain of antennas is 2.36 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 15 von 22
Page 15 of 22

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 Watt (Maximum Conducted Peak Power)
e.i.r.p. <4W
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-12-05 to 2025-12-31
Input voltage : DC 12V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 55 %
Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Peak Conducted Output Power

Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
1 Mbps	2402	10.08	0.01019	< 1.0
	2440	9.92	0.00982	
	2480	9.94	0.00986	
2 Mbps	2404	9.83	0.00962	
	2440	9.49	0.00889	
	2478	9.64	0.00920	
Maximum Measured Value		10.08	0.01019	

Note: The cable loss is taken into account in results and the maximum e.i.r.p. is 12.44dBm less than 4W (36 dBm).

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 16 von 22
Page 16 of 22

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 : 2025-12-05 to 2025-12-31
Input voltage : DC 12V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 55 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 7: Test Result of Conducted Power Spectral Density

Data Rate	Channel Frequency (MHz)	Measured Conducted Power Spectral Density	Limit
		(dBm / 3kHz)	
1 Mbps	2402	-5.80	8 dBm / 3kHz
	2440	-5.63	
	2480	-5.79	
2 Mbps	2404	-9.14	8 dBm / 3kHz
	2440	-9.11	
	2478	-9.23	

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 17 von 22
Page 17 of 22

5.1.4 99%dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : RSS-Gen clause 6.7
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-12-05 to 2025-12-31
Input voltage : DC 12V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 55 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 8: Test Result of 99% Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 99% Bandwidth	Limit
		(MHz)	
1 Mbps	2402	1.031	/
	2440	1.031	
	2480	1.031	
2 Mbps	2404	1.978	/
	2440	1.978	
	2478	1.968	

Note: The fundamental emissions stay within the allocated band 2400-2483.5MHz.

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 18 von 22
Page 18 of 22

5.1.5 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
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-12-05 to 2025-12-31
Input voltage : DC 12V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 55 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 9: Test Result of 6dB Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 6dB Bandwidth	Limit
		(MHz)	
1 Mbps	2402	0.713	>500kHz
	2440	0.733	
	2480	0.752	
2 Mbps	2404	1.307	>500kHz
	2440	1.307	
	2478	1.307	

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 19 von 22
Page 19 of 22

5.1.6 Frequency stability

RESULT:

Pass

Test Specification

Test standard	: RSS-Gen Clause 8.11
Basic standard	: ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024
Limits	: within at least the central 80% of its permitted operating frequency band (2400-2483.5MHz)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-12-05 to 2025-12-31
Input voltage	: DC 12V
Operation mode	: B
Ambient temperature	: 23.6 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:Seite 20 von 22
Page 20 of 22

5.1.7 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	: 2025-12-05 to 2025-12-31
Input voltage	: DC 12V
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 23.6 °C
Relative humidity	: 55 %
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 B .

Prüfbericht-Nr.: CN25S1H1 002
Test report no.:

Seite 21 von 22
Page 21 of 22

5.1.8 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 6.6
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 Table 4 & Table 5
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2025-12-05 to 2025-12-31
Input voltage	: DC 12V
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
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 B.

6 Photographs of the Test Set-Up

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

7 List of Tables

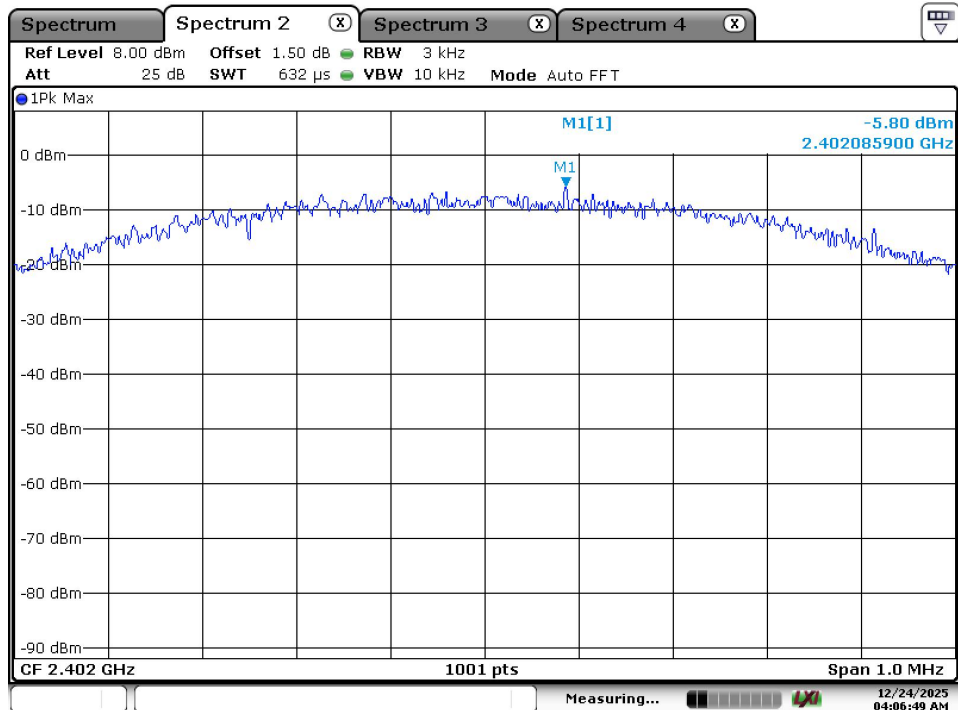
Table 1: List of Test and Measurement Equipment.....	6
Table 2: Technical Specification of EUT	8
Table 3: RF Channel and Frequency of Classic Bluetooth.....	9
Table 4: RF Channel and Frequency of Bluetooth Low Energy	9
Table 5: List of Accessories and Auxiliary Equipment.....	11
Table 6: Test Result of Maximum Peak Conducted Output Power.....	15
Table 7: Test Result of Conducted Power Spectral Density.....	16
Table 8: Test Result of 99% Bandwidth	17
Table 9: Test Result of 6dB Bandwidth.....	18

Appendix B: Test Results of Bluetooth Low Energy

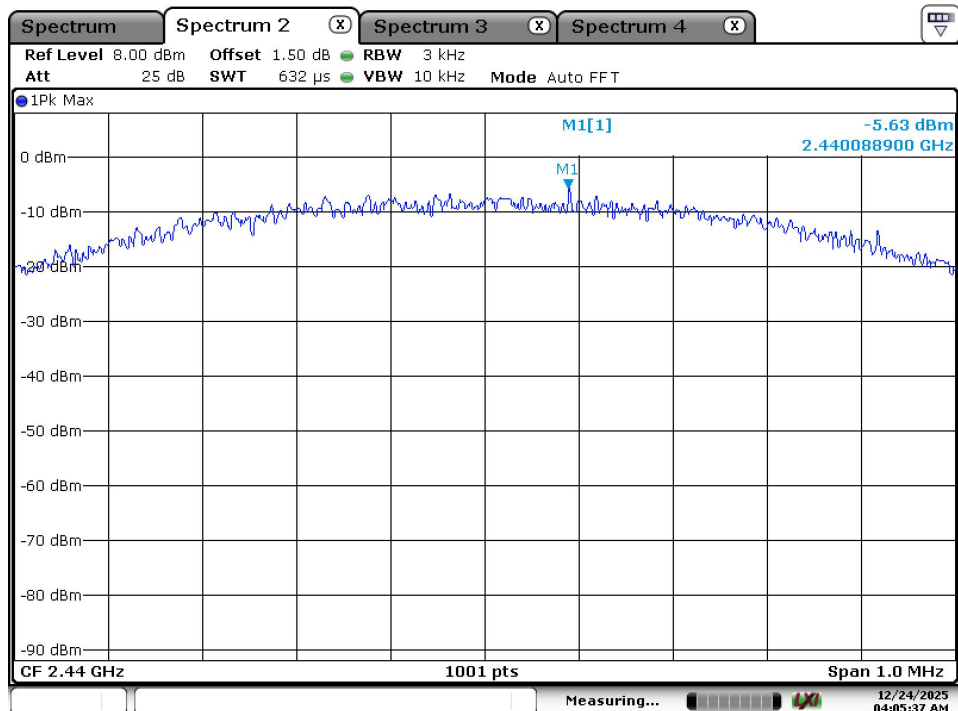
APPENDIX B: TEST RESULTS OF BLUETOOTH LOW ENERGY	1
APPENDIX B.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
<i>Bluetooth LE Mode, 1Mbps</i>	<i>2</i>
<i>Bluetooth LE Mode, 2Mbps</i>	<i>3</i>
APPENDIX B.2: TEST RESULTS OF 6dB BANDWIDTH	5
<i>Bluetooth LE Mode, 1Mbps</i>	<i>5</i>
<i>Bluetooth LE Mode, 2Mbps</i>	<i>7</i>
APPENDIX B.3: TEST RESULTS OF 99% BANDWIDTH	9
<i>Bluetooth LE Mode, 1Mbps</i>	<i>9</i>
<i>Bluetooth LE Mode, 2Mbps</i>	<i>10</i>
APPENDIX B.4: TEST RESULTS OF FREQUENCY STABILITY	12
APPENDIX B.5: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH	14
<i>Bluetooth LE Mode, 1Mbps</i>	<i>14</i>
<i>Bluetooth LE Mode, 2Mbps</i>	<i>18</i>
APPENDIX B.6: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	22
<i>30 MHz - 1GHz</i>	<i>22</i>
<i>1GHz - 18GHz</i>	<i>24</i>
APPENDIX B.7: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	36

Appendix B.1: Test Results of Conducted Power Spectral Density

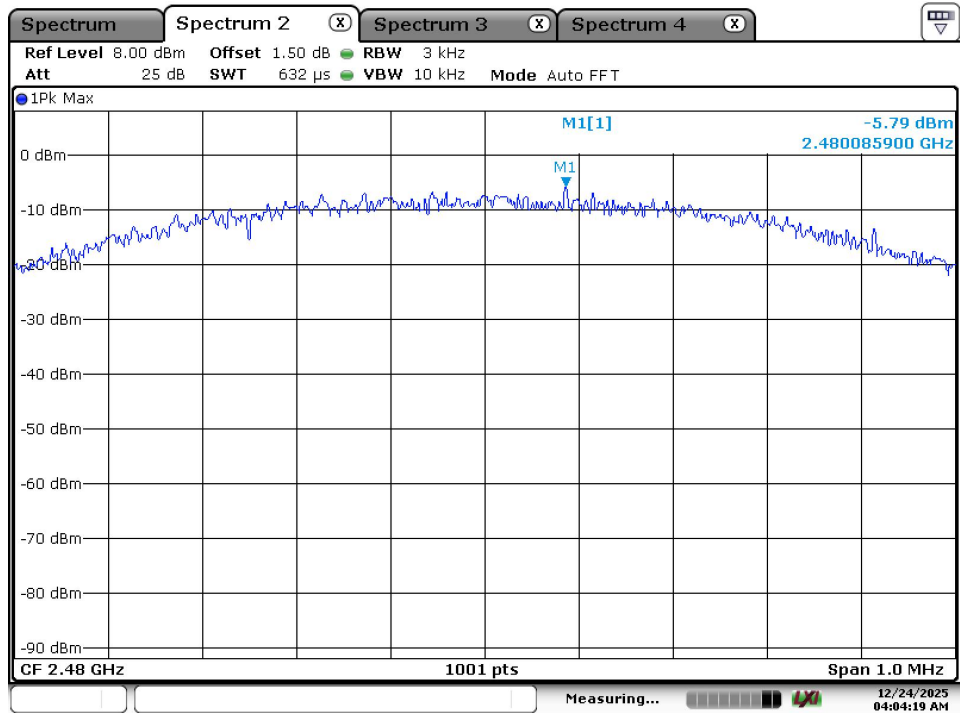
Bluetooth LE Mode, 1Mbps



Date: 24.DEC.2025 04:06:49

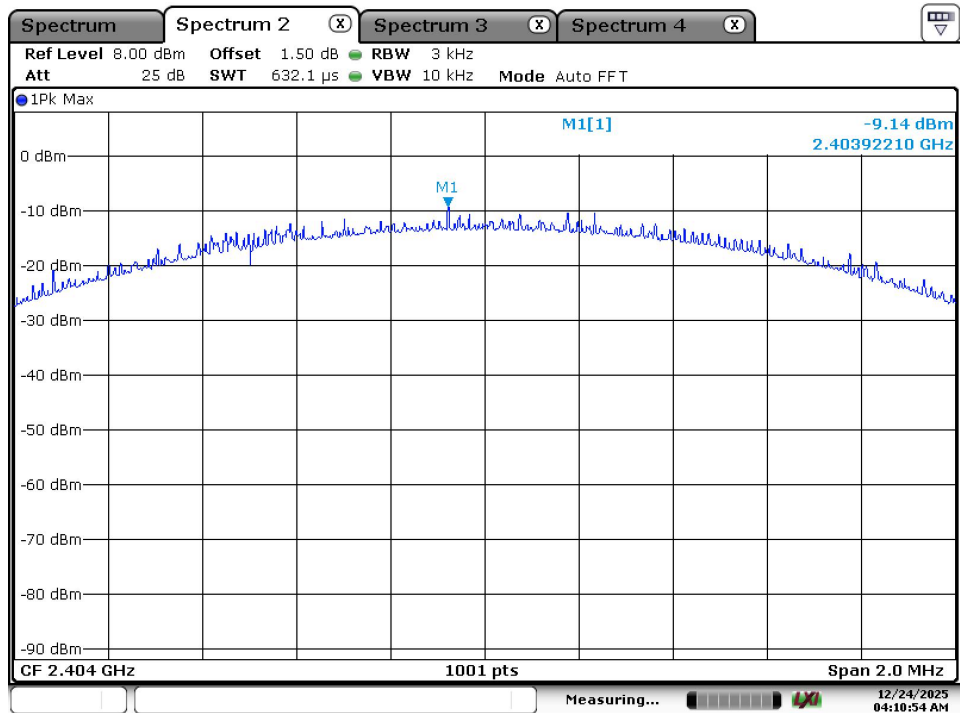


Date: 24.DEC.2025 04:05:37

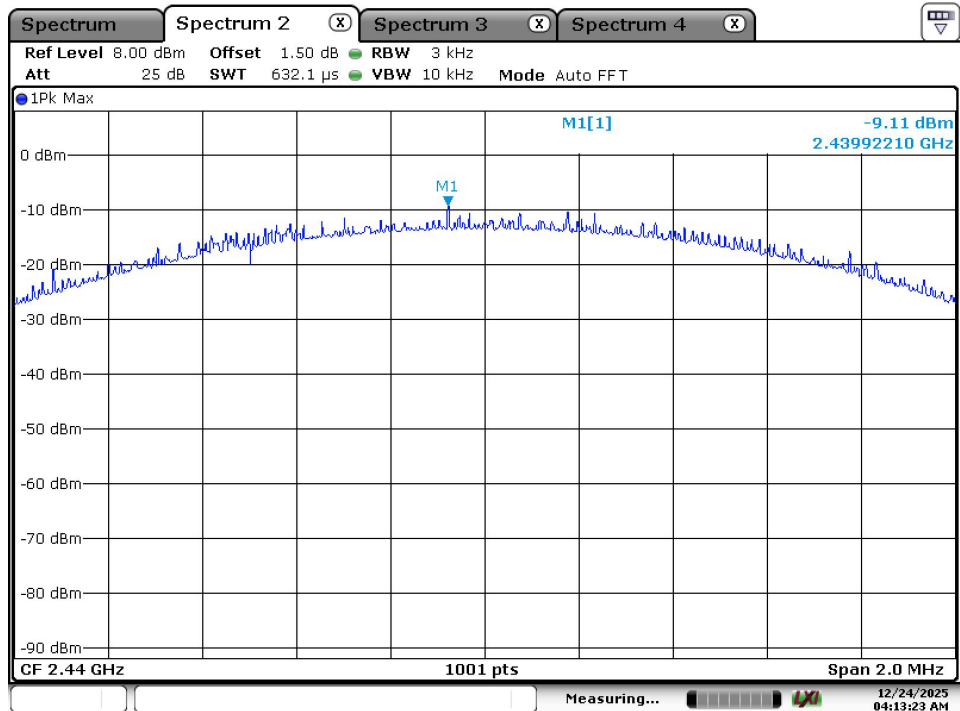


Date: 24.DEC.2025 04:04:19

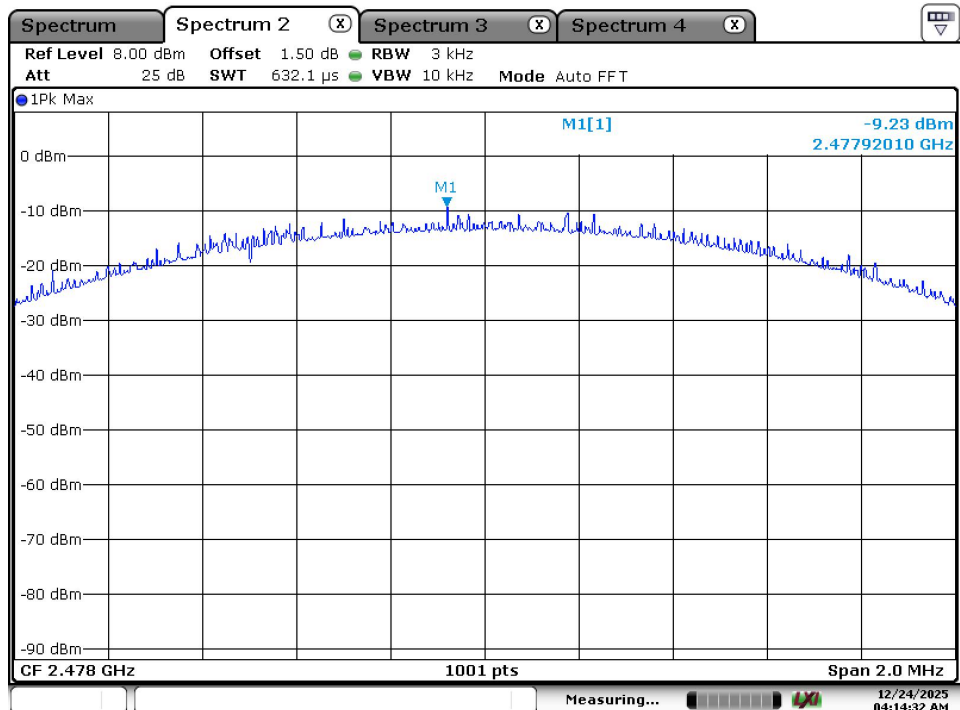
Bluetooth LE Mode, 2Mbps



Date: 24.DEC.2025 04:10:54



Date: 24.DEC.2025 04:13:23



Date: 24.DEC.2025 04:14:33

Appendix B.2: Test Results of 6dB Bandwidth

Bluetooth LE Mode, 1Mbps

6 dB Bandwidth

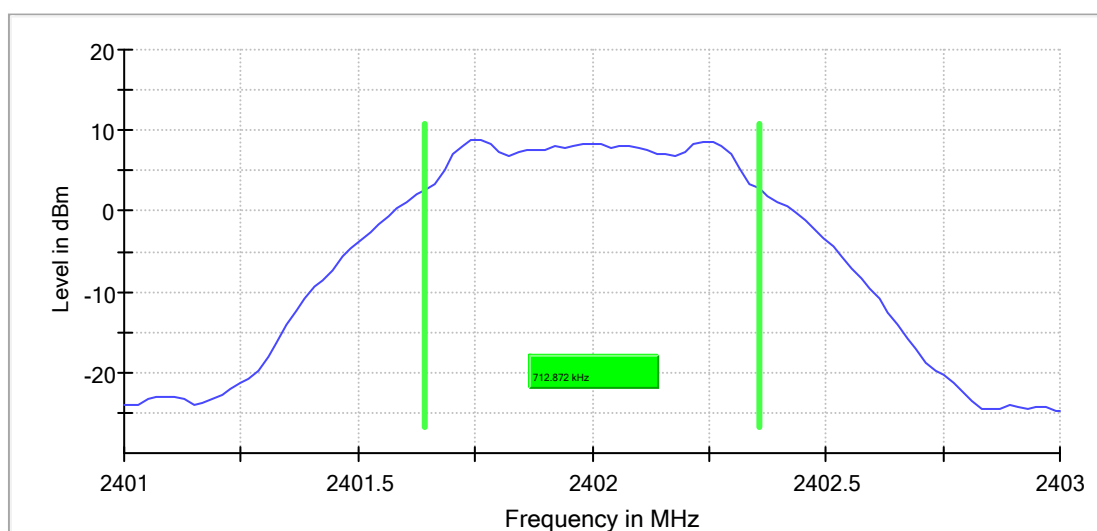
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.712872	0.500000	---	2401.643564	2402.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	8.8	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

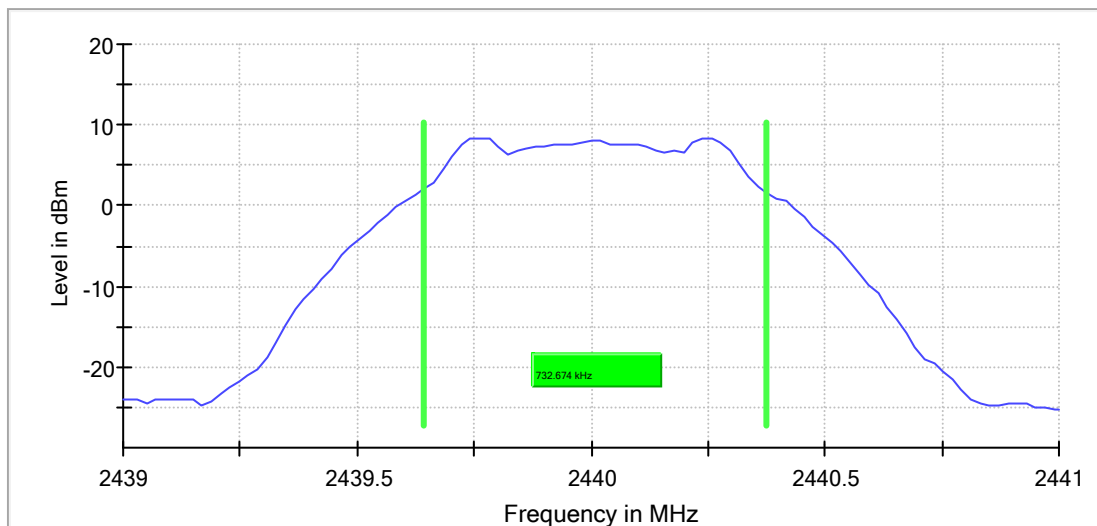
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.732674	0.500000	---	2439.643564	2440.376238

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	8.4	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

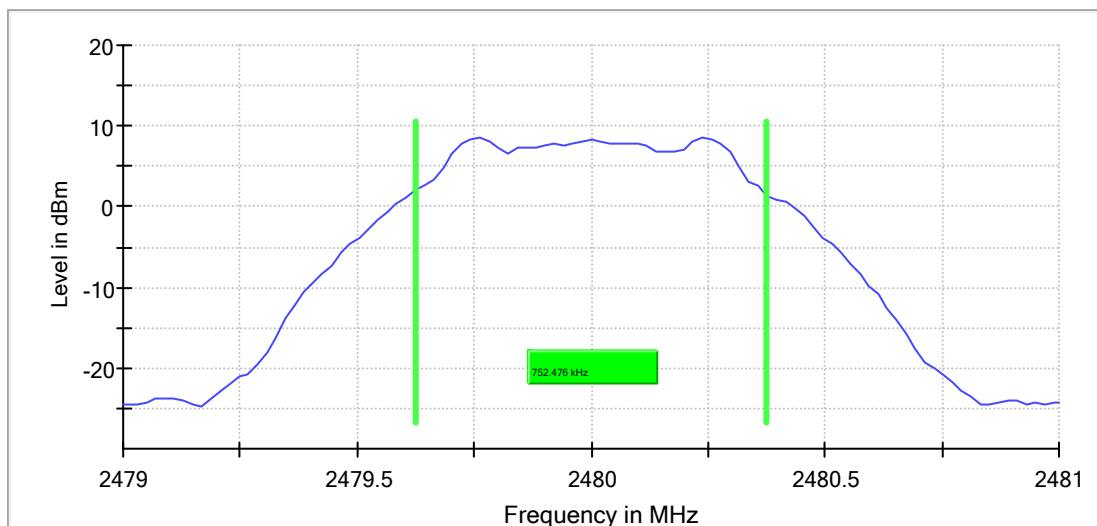
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.752476	0.500000	---	2479.623762	2480.376238

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	8.5	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



Bluetooth LE Mode, 2Mbps

6 dB Bandwidth

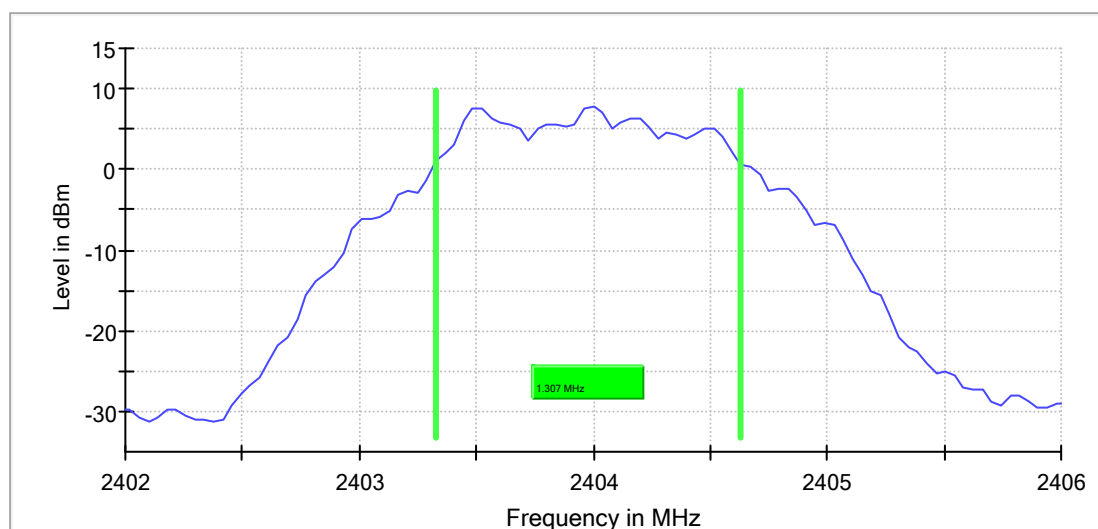
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2404.000000	1.306930	0.500000	---	2403.326733	2404.633663

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2404.000000	7.7	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

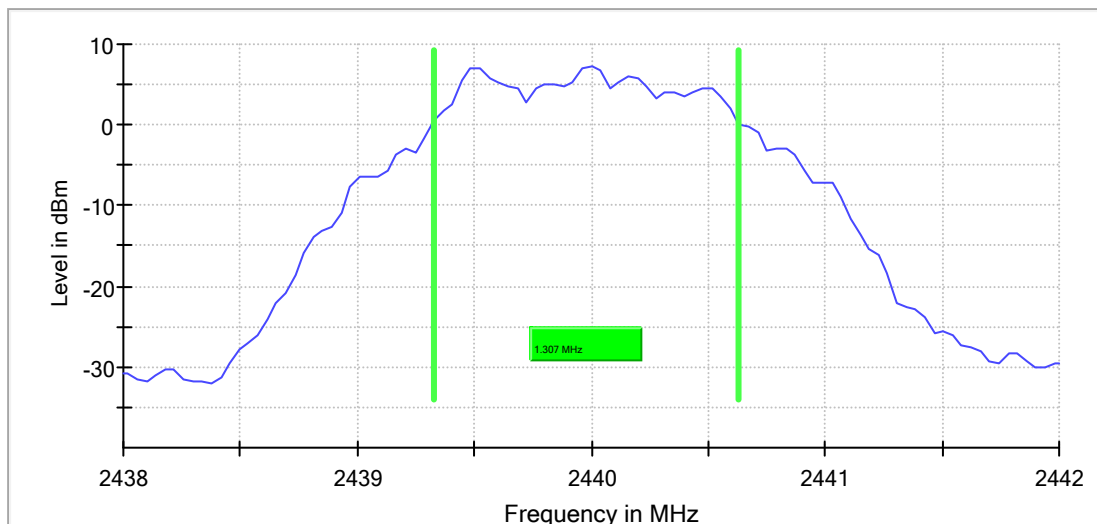
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.306930	0.500000	---	2439.326733	2440.633663

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	7.3	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

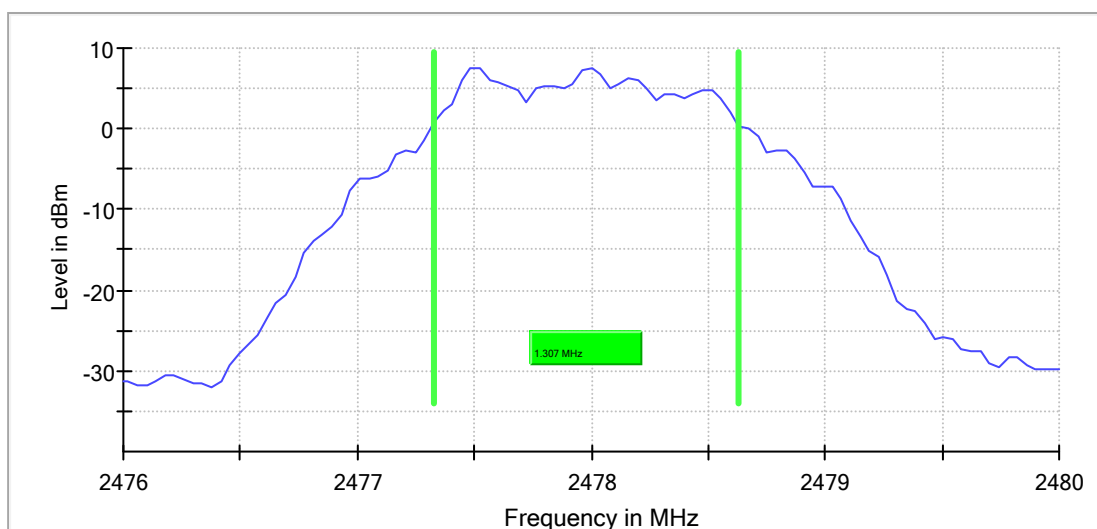
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2478.000000	1.306930	0.500000	---	2477.326733	2478.633663

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2478.000000	7.4	PASS

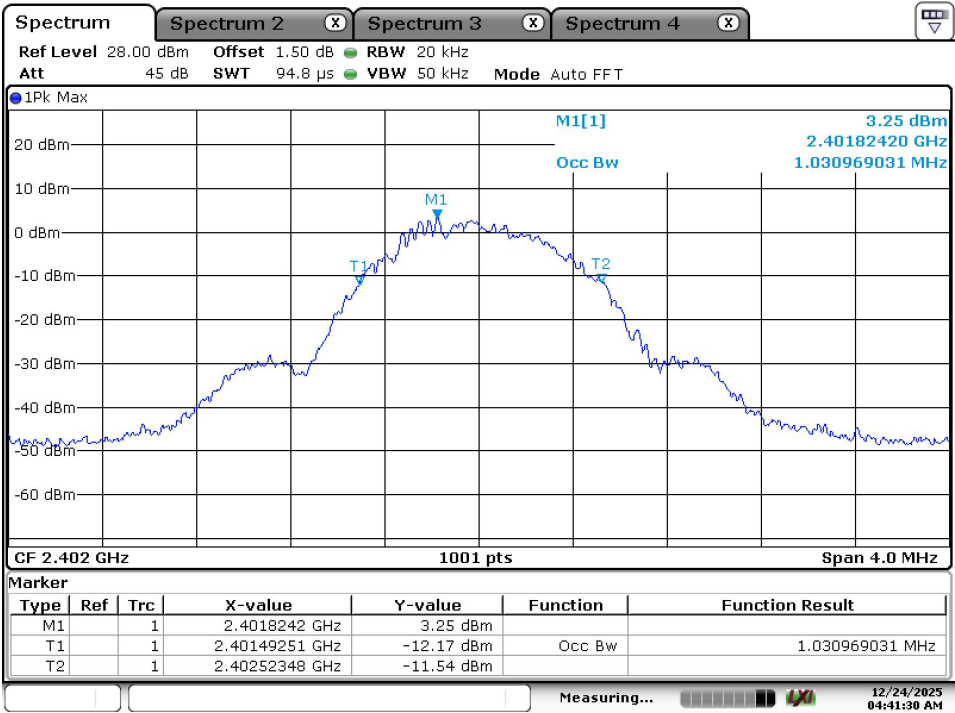
RBW=100kHz, VBW=300kHz

6 dB Bandwidth

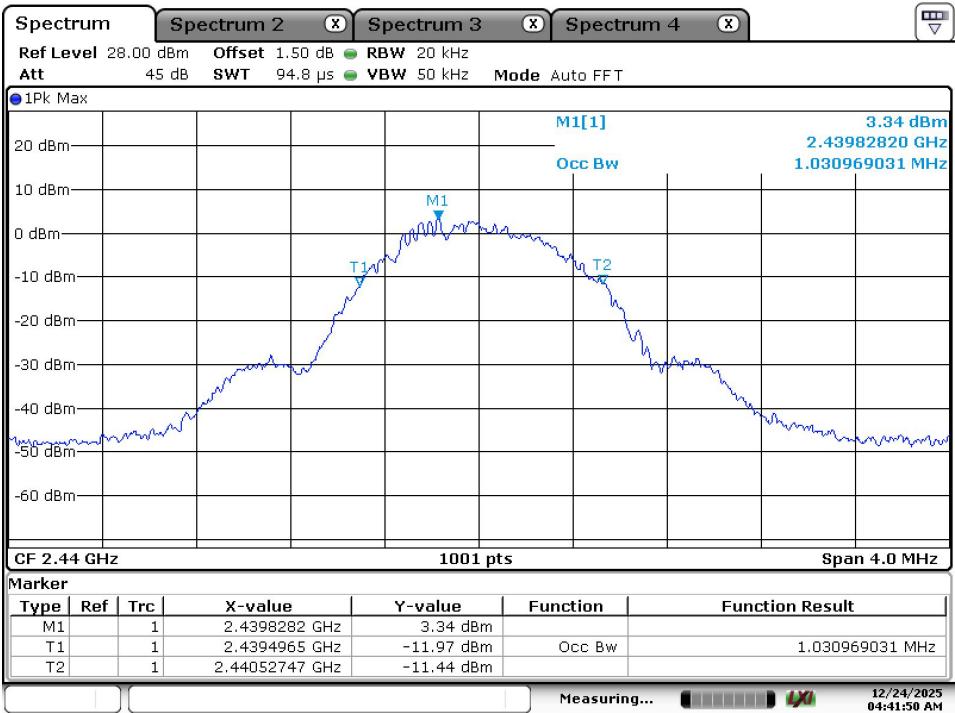


Appendix B.3: Test Results of 99% Bandwidth

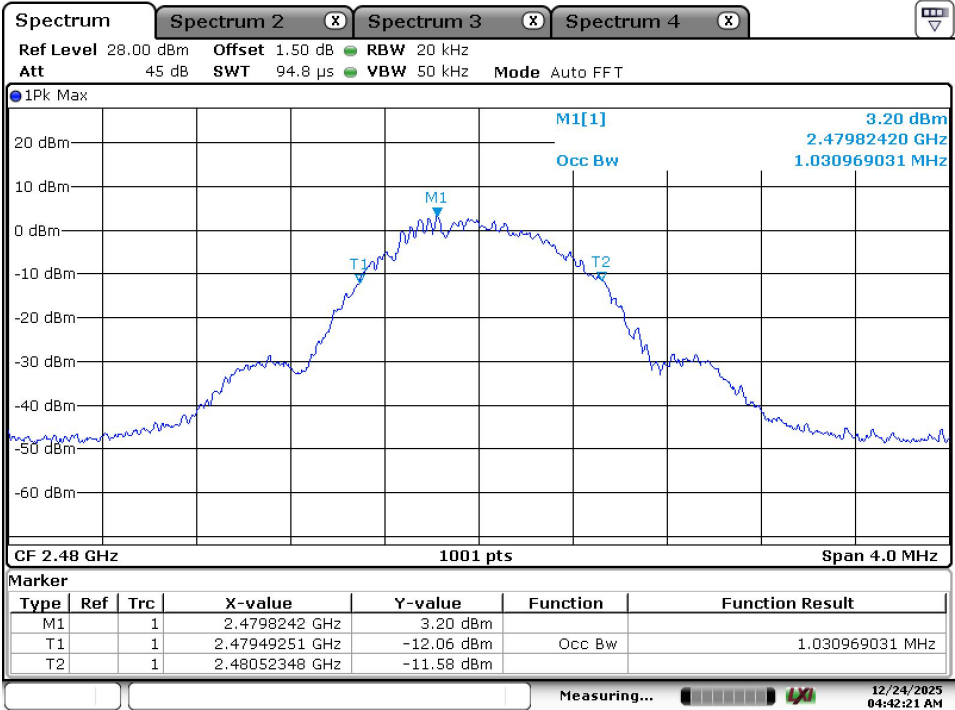
Bluetooth LE Mode, 1Mbps



Date: 24.DEC.2025 04:41:30

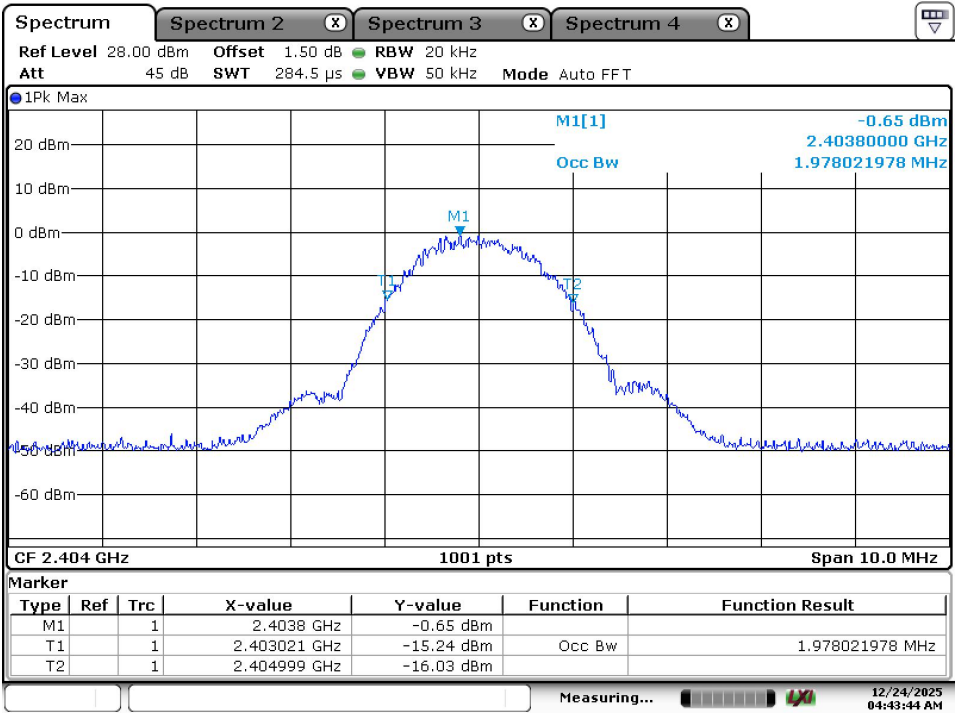


Date: 24.DEC.2025 04:41:50



Date: 24.DEC.2025 04:42:21

Bluetooth LE Mode, 2Mbps



Date: 24.DEC.2025 04:43:44