

Prüfbericht-Nr.: Test report no.:	CN24WQW3 001	Auftrags-Nr.: Order no.:	168459559	Page 1 of 22 Seite 1 von 22
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2023-11-24	
Auftraggeber: Client:	Harman International Industries, Incorporated 8500 Balboa Blvd, Northridge, California, 91329, United States			
Prüfgegenstand: Test item:	Bluetooth Ambient Light			
Bezeichnung / Typ-Nr.: Identification / Type no.:	PARTYLIGHT BEAM (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 15.207 CFR47 FCC Part 15: Subpart C Section 15.209		RSS-247-Issue 3 August 2023 RSS-Gen Issue 5 March 2019	
Wareneingangsdatum: Date of sample receipt:	2024-01-03	Refer to photos document		
Prüfmuster-Nr.: Test sample no.:	A003635856			
Prüfzeitraum: Testing period:	2024-01-04 – 2024-02-28			
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:	2024-04-02	Ausstellungsdatum: Issue date:		2024-04-02
Signed by: Harry W. C. Wu		Signed by: Alex Lan		
Stellung / Position:	Project Manager	Stellung / Position:	Reviewer	
Sonstiges / Other:	FCC ID: APIJBLPLBEAM IC: 6132A-JBLPLBEAM HVIN: PARTYLIGHT BEAM			
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>				

v05

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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>

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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 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

5.1.9 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 Low Energy.

Appendix B: Photographs of the Test Set-up.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

No.362, Huanguan Middle Road, Songyuansha Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China/518110

FCC Registration No.: 694916

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 (TS8997)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Wireless Connectivity Tester	R&S	CMW270	101375	25.07.2024
Signal Analyzer	R&S	FSV 40	101441	25.07.2024
Vector Signal Generator	R&S	SMBV100A	263301	25.07.2024
Signal Generator	R&S	SMB100A	115186	25.07.2024
OSP	R&S	OSP 150	101017	13.11.2024
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	13.11.2024
Power Sensor	R&S	NRP-Z81	105677	25.07.2024
Humid & Temp Programmable Tester	BOST	NTH090-60	19040801	28.02.2025
Shielding Room 8#	Albatross	SR8	APC17151-SR8	22.06.2024
Unwanted Emission Testing (TS9975)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	25.07.2024
Signal Analyzer	R&S	FSV 40	101439	25.07.2024
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	25.07.2024
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	25.07.2024
Amplifier	R&S	SCU-18F	180070	25.07.2024
Amplifier	R&S	SCU40A	100475	25.07.2024
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	06.08.2024
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	06.08.2024
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	27.08.2024
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	06.08.2024
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	22.06.2024
Conducted Emission on AC Mains				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR3	102428	2024-07-31
Artificial Mains Network	R&S	ENV216	102333	2024-08-01
Impedance Stabilisation Network	R&S	ENY81-CA6	101810	2024-08-01
EMC32 test software	R&S	EMC32(Ver.10.50.00)	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.

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
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 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 No.362, Huanguan Middle Road, Songyuansha Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China/518110 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 Bluetooth Ambient Light, which supports Bluetooth Low Energy technology.

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	Bluetooth Ambient Light
Type Designation	PARTYLIGHT BEAM
Trademark	JBL
FCC ID	APIJBLPLBEAM
IC	6132A-JBLPLBEAM
HVIN	PARTYLIGHT BEAM
Extreme Temperature Range	0°C to +40°C
Operating Voltage	AC 100-240V, 50/60Hz, 22W
Technical Specification of Bluetooth Low Energy	
Bluetooth Core Version	Bluetooth 5.3
Operating Frequency band	2402 ~ 2480 MHz
Channel Number	40 channels
Channel separation	2MHz
Data rate	1Mbps, 2Mbps
Modulation	GFSK
Antenna Type	PCB Antenna
Antenna Gain	2.05 dBi (Provided by the Client)

Table 3: 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
- Block Diagram
- FCC/IC Label and Location Info
- Operation Description
- Photo Document
- Schematics
- User Manual

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: 2013.

According to clause 3.1, all test items were applied on model PARTYLIGHT BEAM with black color of enclosure.

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	PF-16A6N8

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)

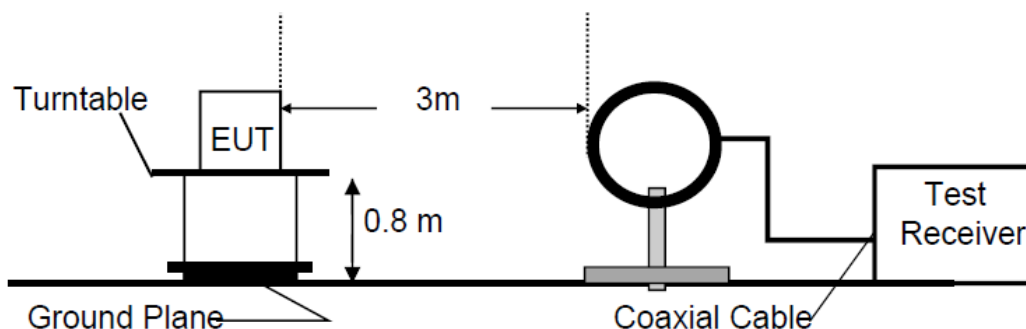


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

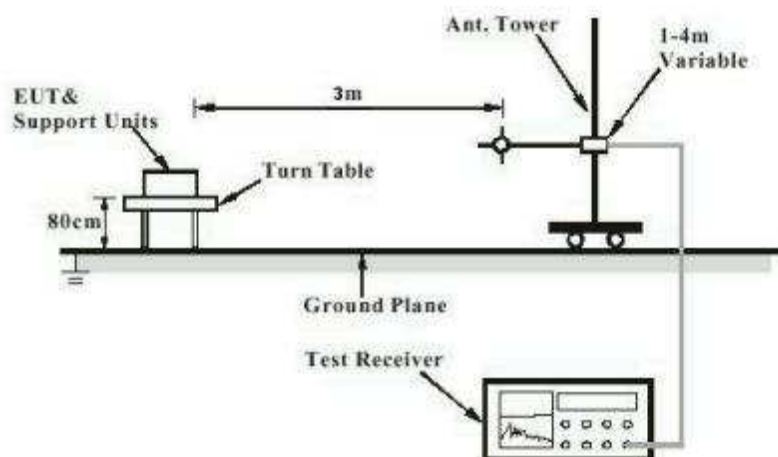


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

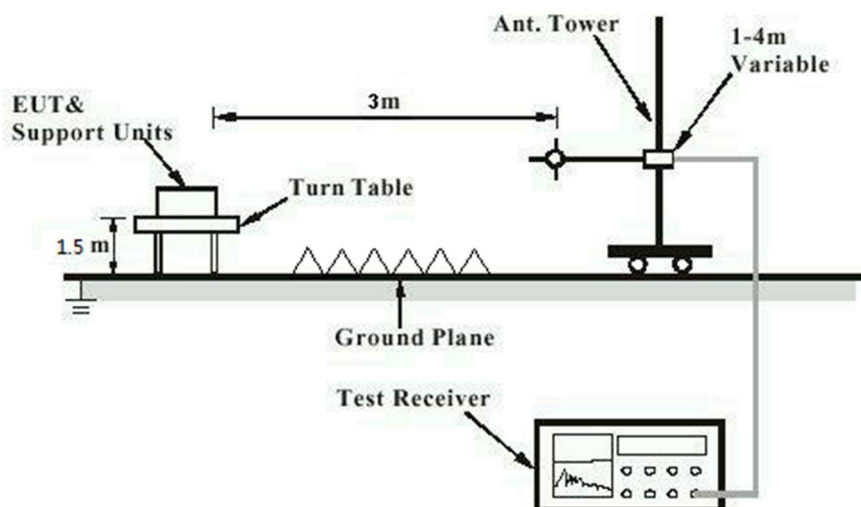


Diagram of Measurement Configuration for Conducted Transmitter Measurement

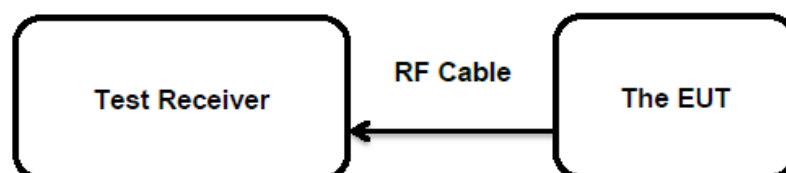
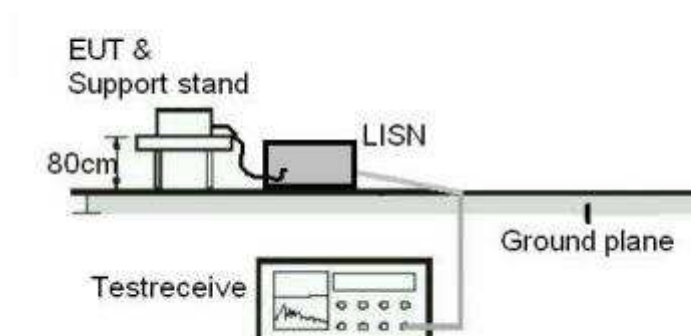


Diagram of Measurement Configuration for Mains Conduction Measurement



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 PCB antenna , the directional gain of antennas is 2.05 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.

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5.1.2 Maximum Peak Conducted Output Power

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(b)(3)
RSS-247 Clause 5.4(d)
Basic standard : ANSI C63.10: 2013
Limits : < 1 Watt (Maximum Conducted Peak Power)
e.i.r.p. <4W
Kind of test site : Shielded Room

Test Setup

Date of testing : 2024-01-04 to 2024-02-28
Input voltage : AC 120V/60Hz
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 52 %
Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 5: Test Result of Maximum Peak Conducted Output Power

Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
BLE 1Mbps	2402	7.6	0.0058	< 1.0
	2440	7.7	0.0059	
	2480	7.4	0.0055	
BLE 2Mbps	2402	7.6	0.0058	< 1.0
	2440	7.7	0.0059	
	2480	7.5	0.0056	
Maximum Measured Value		7.7	0.0059	

Note: The cable loss is taken into account in results and the maximum e.i.r.p. is 9.75 dBm less than 4W (36 dBm).

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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 5.2(b)
 Basic standard : ANSI C63.10: 2013
 Limits : 8 dBm / 3kHz
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2024-01-04 to 2024-02-28
 Input voltage : AC 120V/60Hz
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 23.6 °C
 Relative humidity : 52 %
 Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

Table 6: Test Result of Conducted Power Spectral Density

Test Mode	Channel Frequency (MHz)	Conducted Power Spectral Density	Limit
		(dBm / 3kHz)	
BLE 1Mbps	2402	-8.49	8 dBm / 3kHz
	2440	-8.98	
	2480	-8.43	
BLE 2Mbps	2402	-10.54	8 dBm / 3kHz
	2440	-11.03	
	2480	-10.67	

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5.1.4 99%dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : RSS-Gen clause 6.7
Basic standard : ANSI C63.10: 2013
Kind of test site : Shielded Room

Test Setup

Date of testing : 2024-01-04 to 2024-02-28
Input voltage : AC 120V/60Hz
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 52 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

Table 7: Test Result of 99% Bandwidth

Test Mode	Channel Frequency (MHz)	Measured 99% Bandwidth	Limit
		(MHz)	
BLE 1Mbps	2402	1.030	/
	2440	1.030	
	2480	1.035	
BLE 2Mbps	2402	2.050	/
	2440	2.060	
	2480	2.060	

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

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5.1.5 6dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(a)(2)
 : RSS-247 Clause 5.2(a)
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2024-01-04 to 2024-02-28
 Input voltage : AC 120V/60Hz
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 23.6 °C
 Relative humidity : 52 %
 Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

Table 8: Test Result of 6dB Bandwidth

Test Mode	Channel Frequency (MHz)	Measured 6dB Bandwidth	Limit
		(MHz)	
BLE 1Mbps	2402	0.732674	>500kHz
	2440	0.752476	
	2480	0.732674	
BLE 2Mbps	2402	1.306930	>500kHz
	2440	1.346534	
	2480	1.306930	

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5.1.6 Frequency stability

RESULT:

Pass

Test Specification

Test standard	: RSS-247 Clause 8.11
Basic standard	: ANSI C63.10: 2013
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	: 2024-01-04 to 2024-02-28
Input voltage	: AC 120V/60Hz
Operation mode	: B
Ambient temperature	: 23.6 °C
Relative humidity	: 52 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A

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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 5.5
Basic standard	: ANSI C63.10: 2013
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	: 2024-01-04 to 2024-02-28
Input voltage	: AC 120V/60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 23.6 °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.

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5.1.8 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3 & 5.5
Basic standard	:	ANSI C63.10: 2013
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	:	2024-01-04 to 2024-02-28
Input voltage	:	AC 120V/60Hz
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 A.

Prüfbericht-Nr.: CN24WQW3 001
Test report no.:

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5.1.9 Conducted Emission on AC Mains

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.207(a) RSS-Gen Clause 8.8
Basic standard	: ANSI C63.10: 2013
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2024-01-04 to 2024-02-28
Input voltage	: AC 120V/60Hz
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: 24.0 °C
Relative humidity	: 53.3 %
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 A.

7 List of Tables

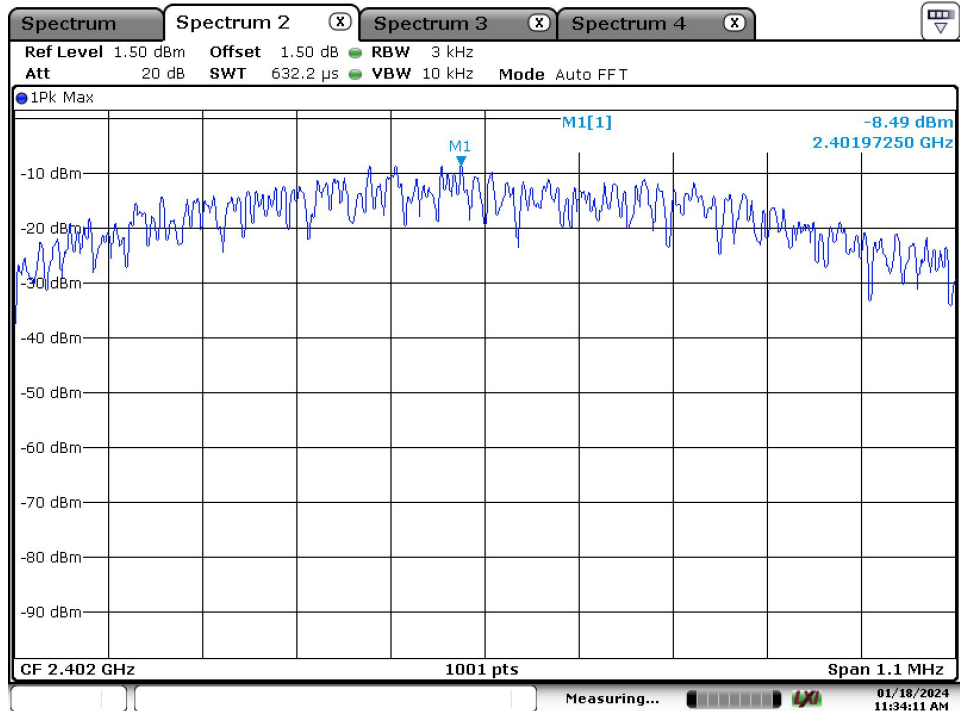
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Appendix A: Test Results of Bluetooth Low Energy

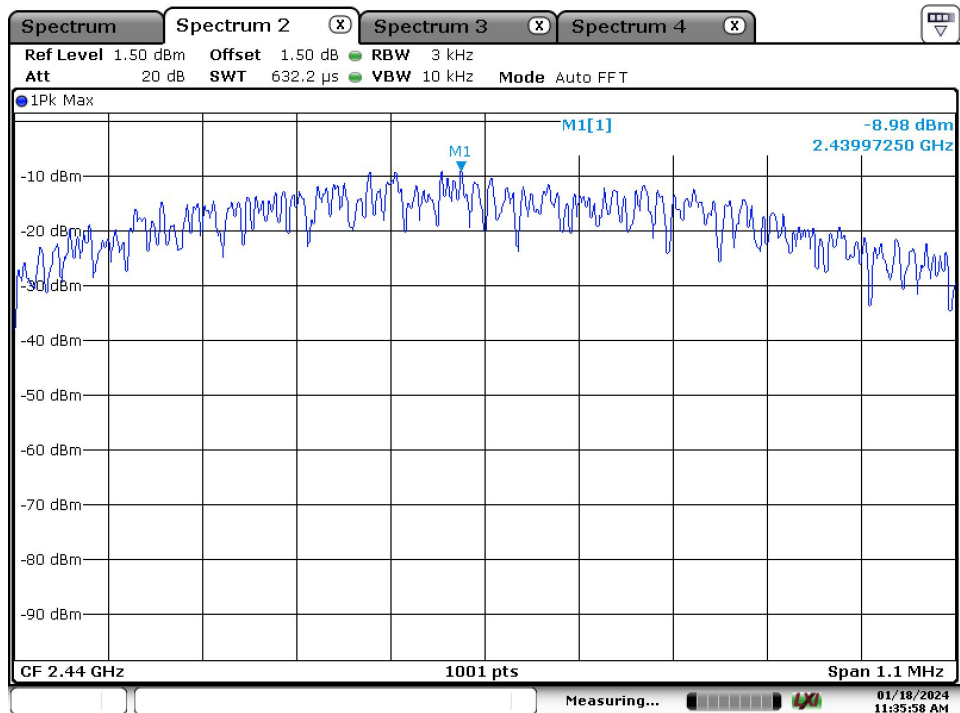
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Appendix A.1: Test Results of Conducted Power Spectral Density

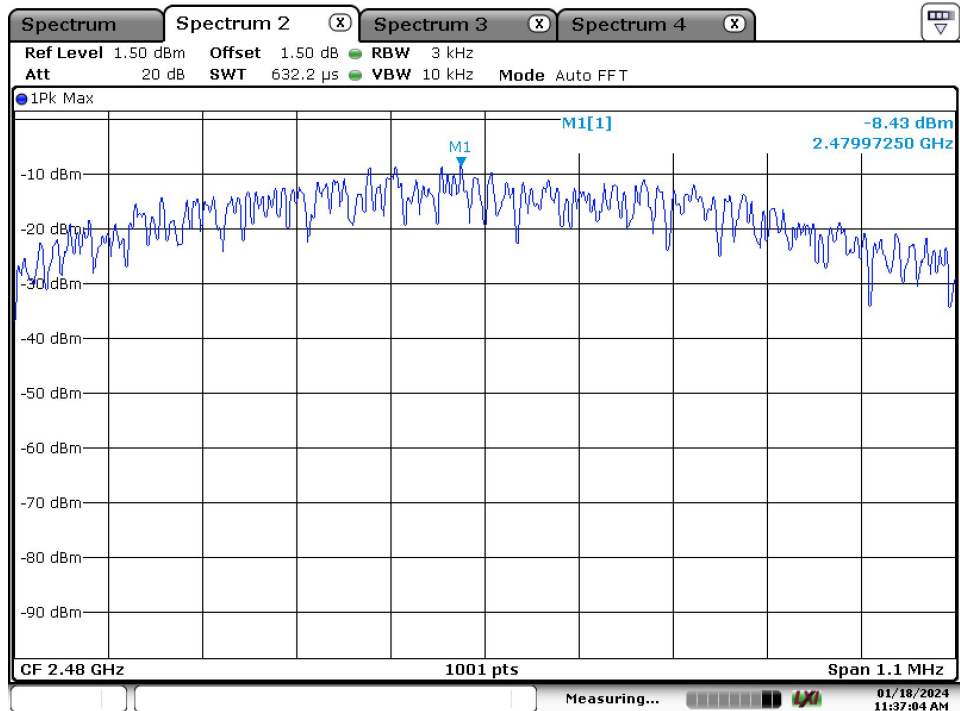
Bluetooth LE Mode, 1Mbps



Date: 18.JAN.2024 11:34:10

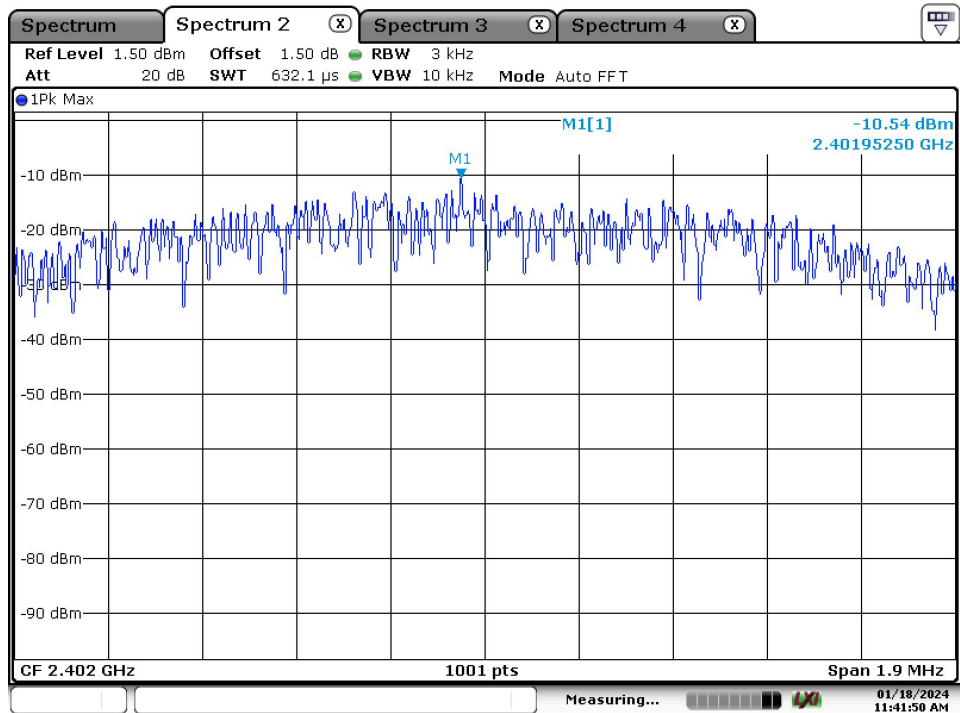


Date: 18.JAN.2024 11:35:58

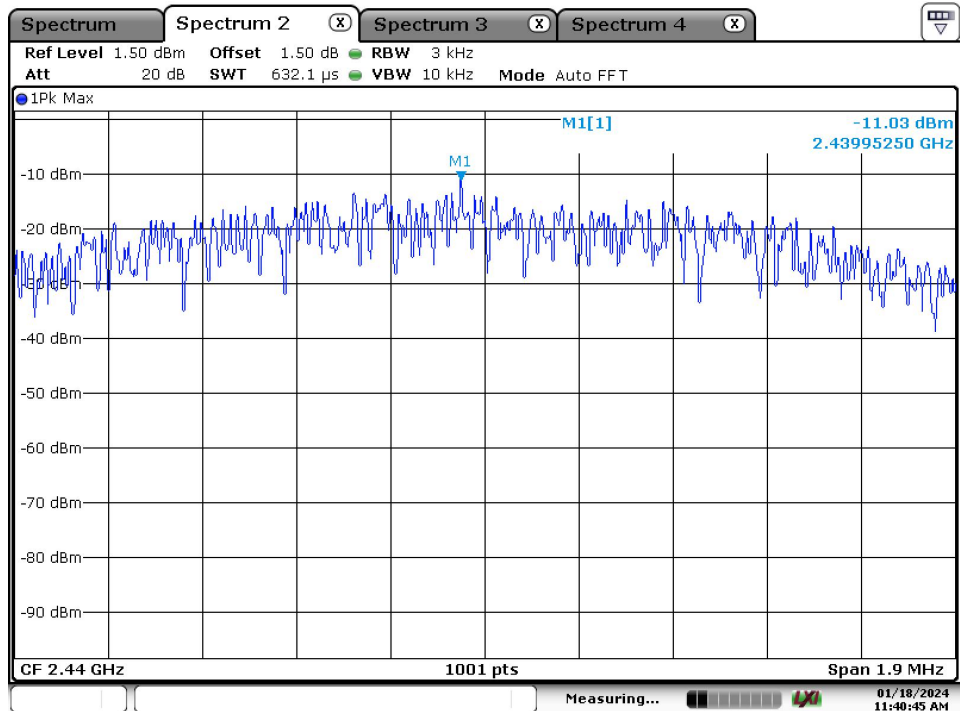


Date: 18.JAN.2024 11:37:03

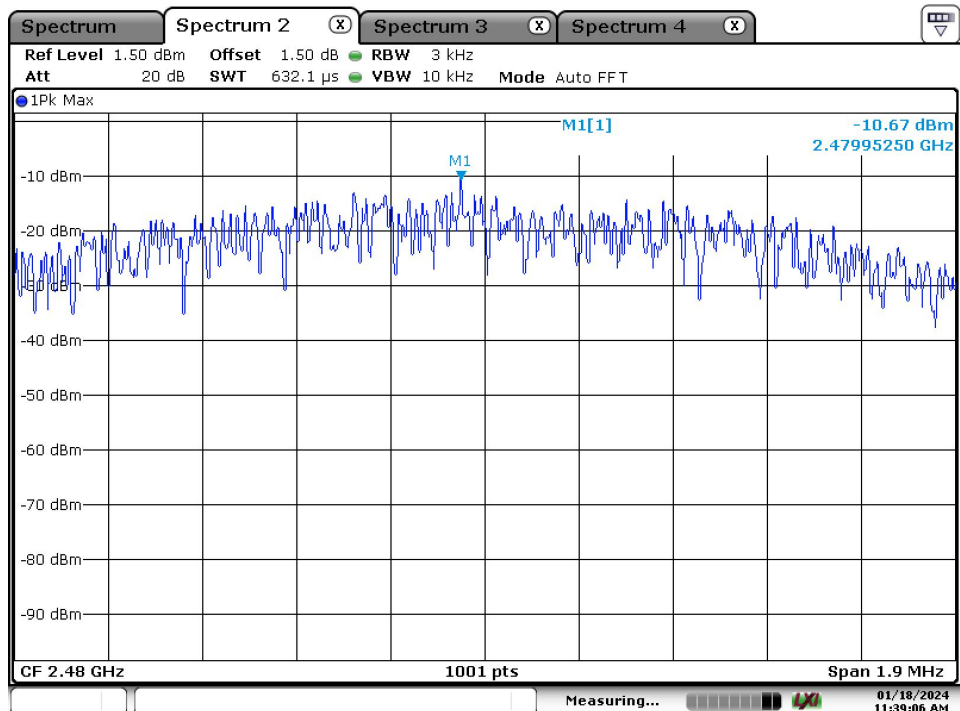
Bluetooth LE Mode, 2Mbps



Date: 18.JAN.2024 11:41:49



Date: 18.JAN.2024 11:40:45



Date: 18.JAN.2024 11:39:06

Appendix A.2: Test Results of 6dB Bandwidth

Bluetooth LE Mode, 1Mbps

6 dB Bandwidth

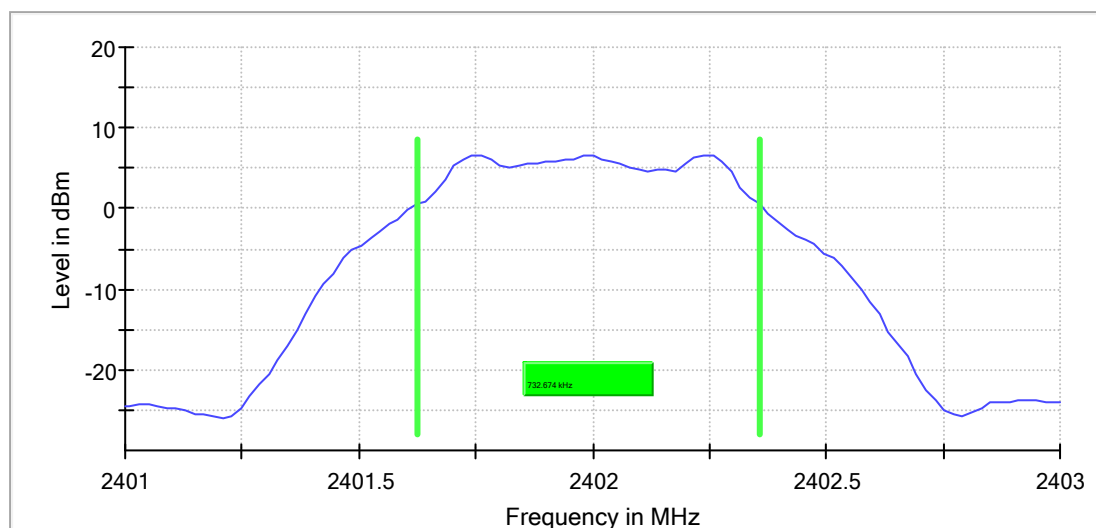
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.732674	0.500000	---	2401.623762	2402.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	6.6	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

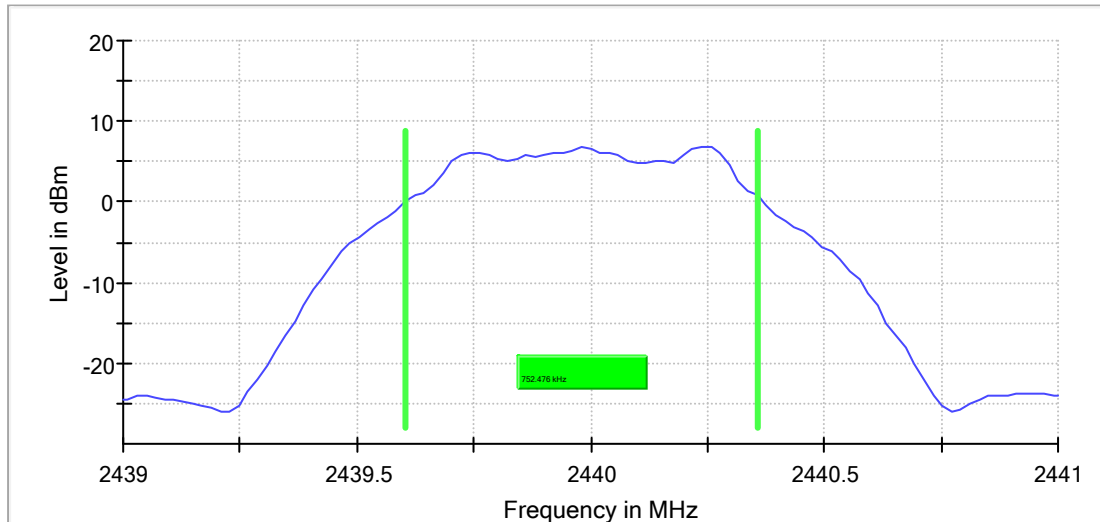
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.752476	0.500000	---	2439.603960	2440.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	6.8	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

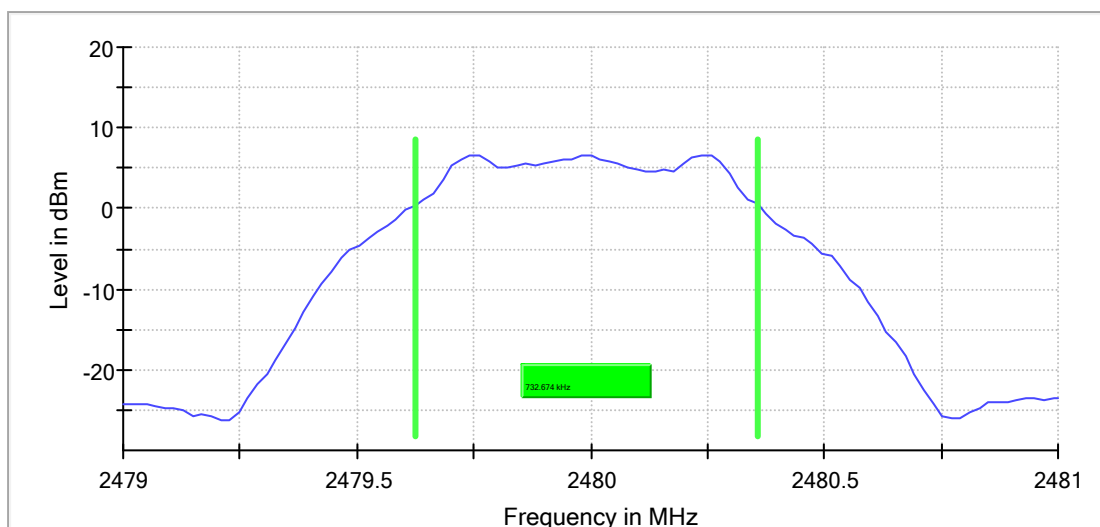
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.732674	0.500000	---	2479.623762	2480.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	6.6	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



Bluetooth LE Mode, 2Mbps

6 dB Bandwidth

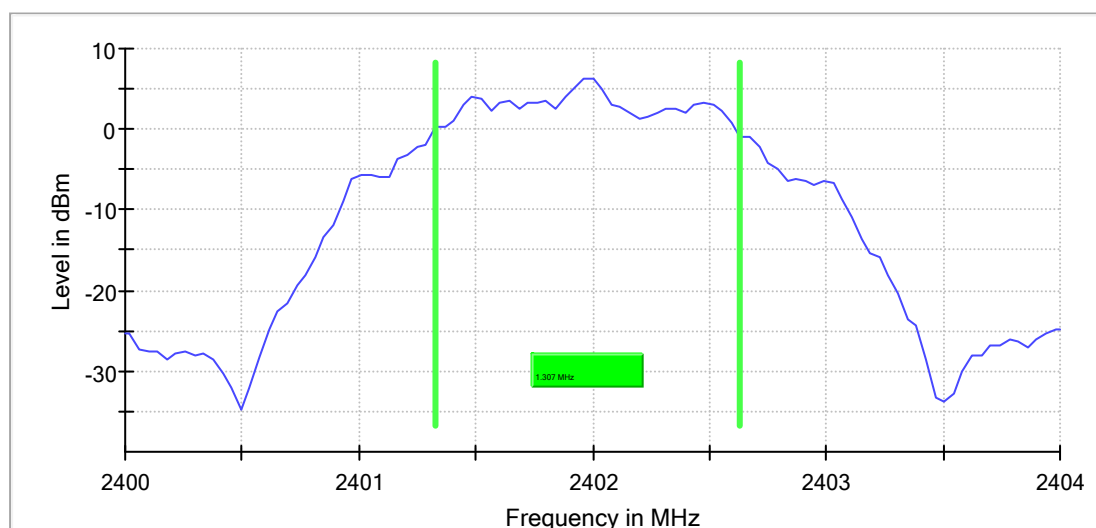
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.306930	0.500000	---	2401.326733	2402.633663

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	6.3	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

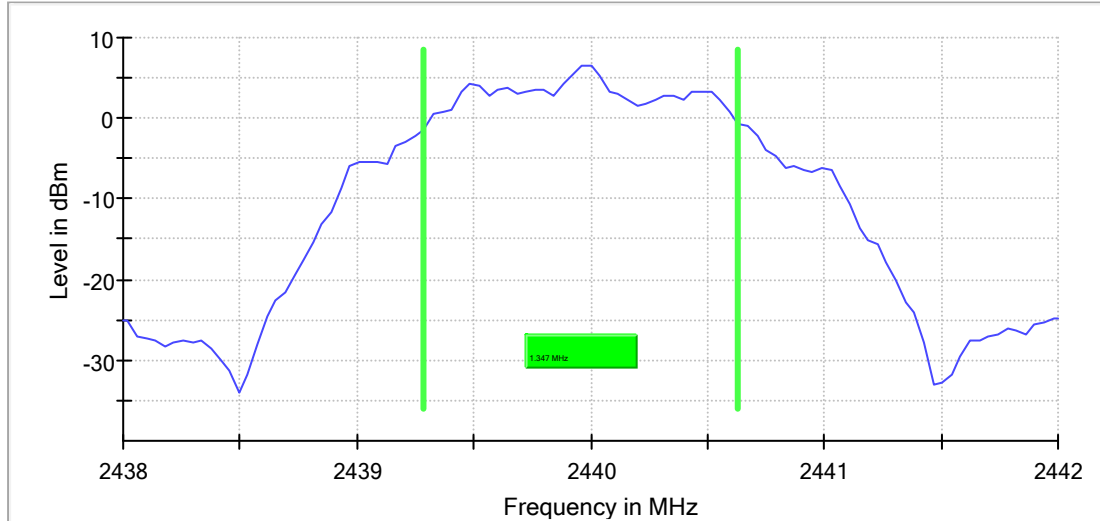
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.346534	0.500000	---	2439.287129	2440.633663

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	6.5	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

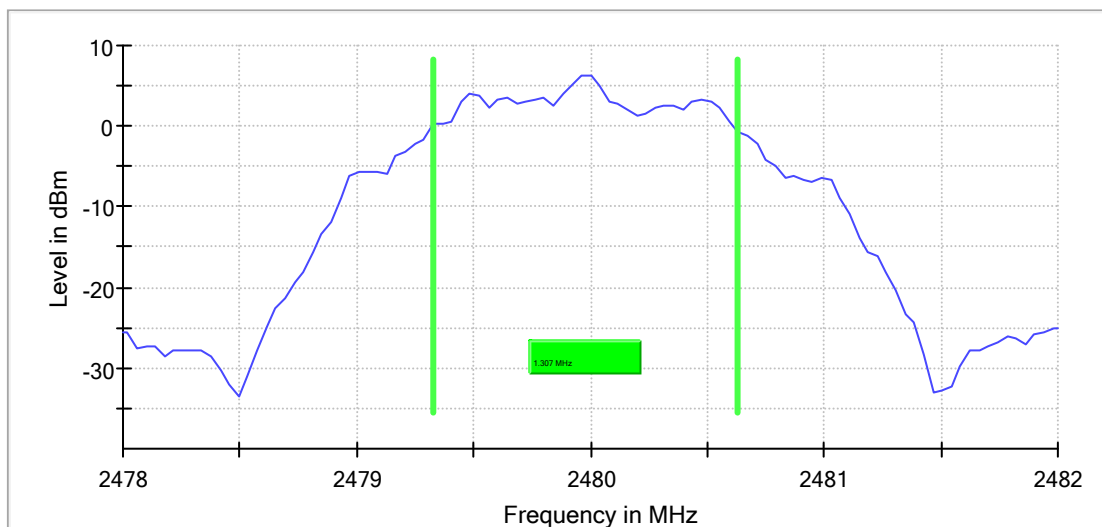
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.306930	0.500000	---	2479.326733	2480.633663

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	6.3	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



Appendix A.3: Test Results of 99% Bandwidth

Bluetooth LE Mode, 1Mbps

99 % Bandwidth

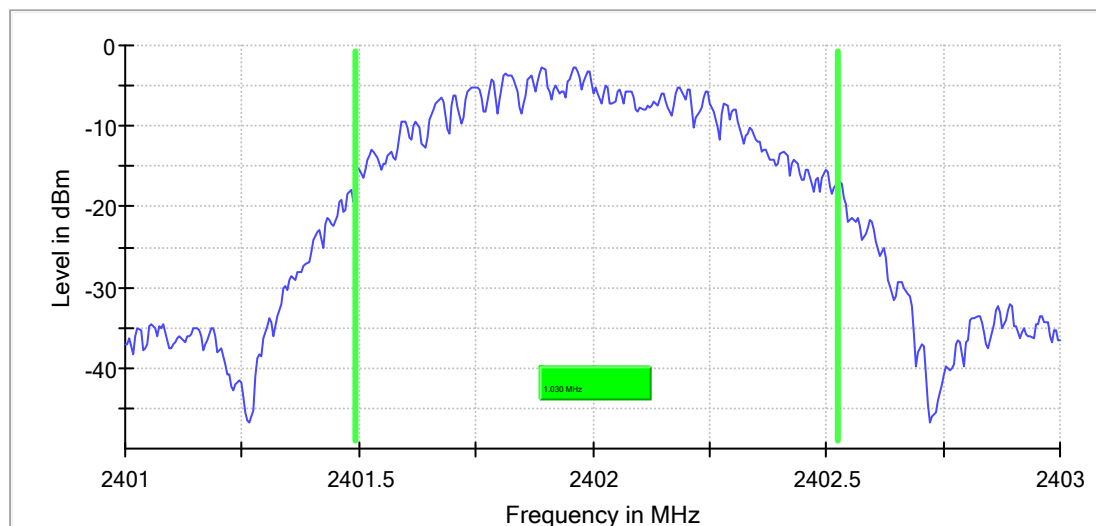
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.030000	---	---	2401.492500	2402.522500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth



99 % Bandwidth

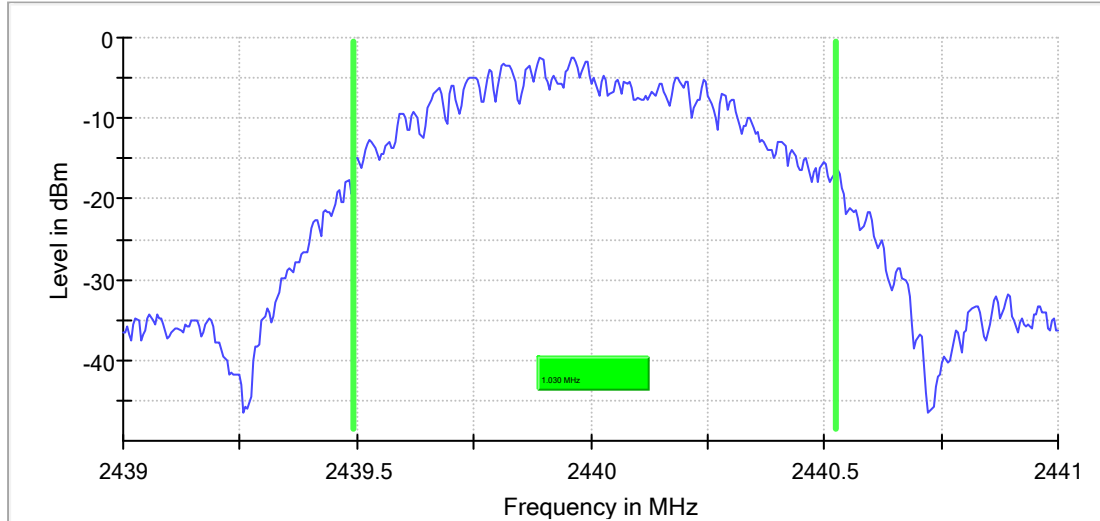
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.030000	---	---	2439.492500	2440.522500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2440.000000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth



99 % Bandwidth

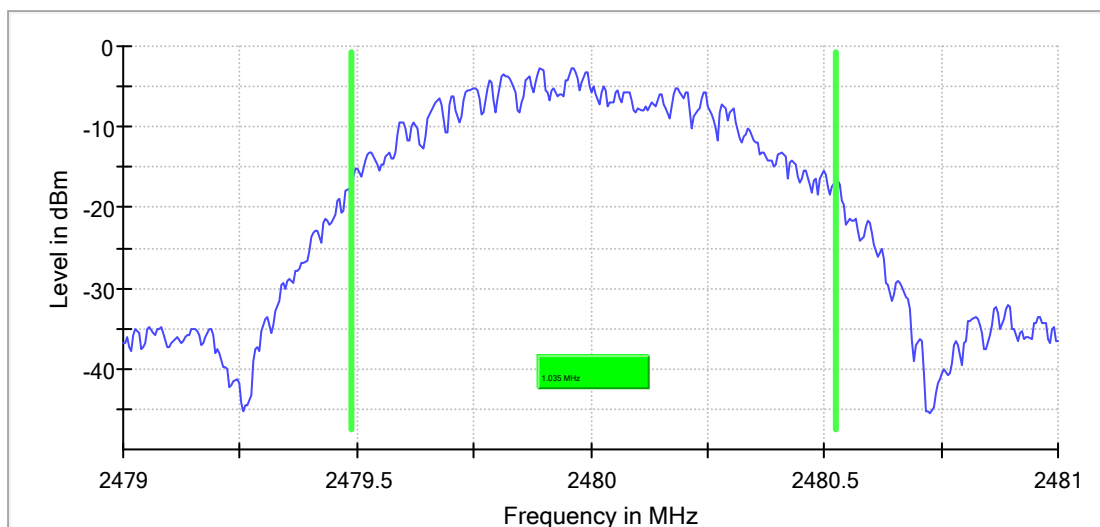
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.035000	---	---	2479.487500	2480.522500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth



Bluetooth LE Mode, 2Mbps

99 % Bandwidth

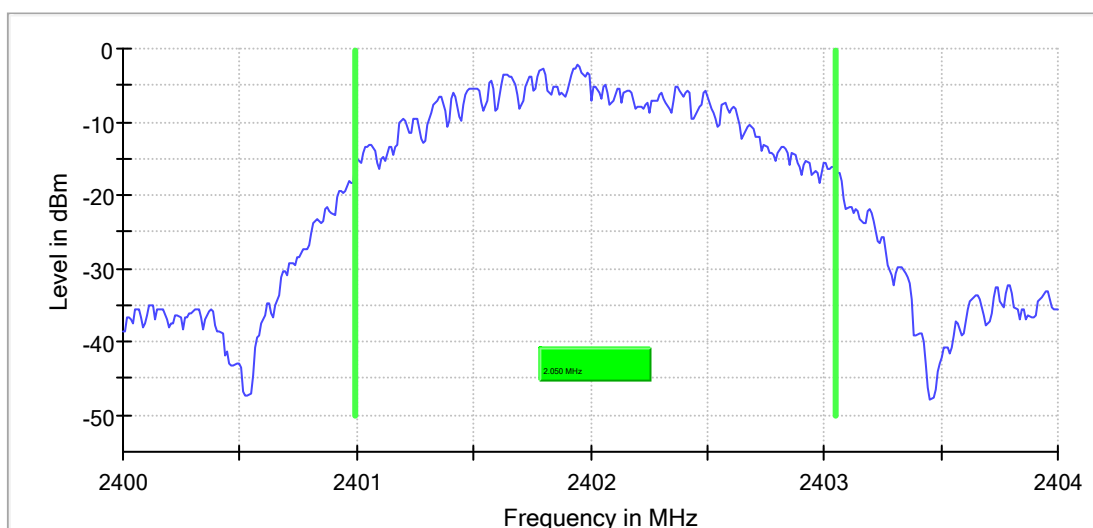
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	2.050000	---	---	2400.995000	2403.045000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth



99 % Bandwidth

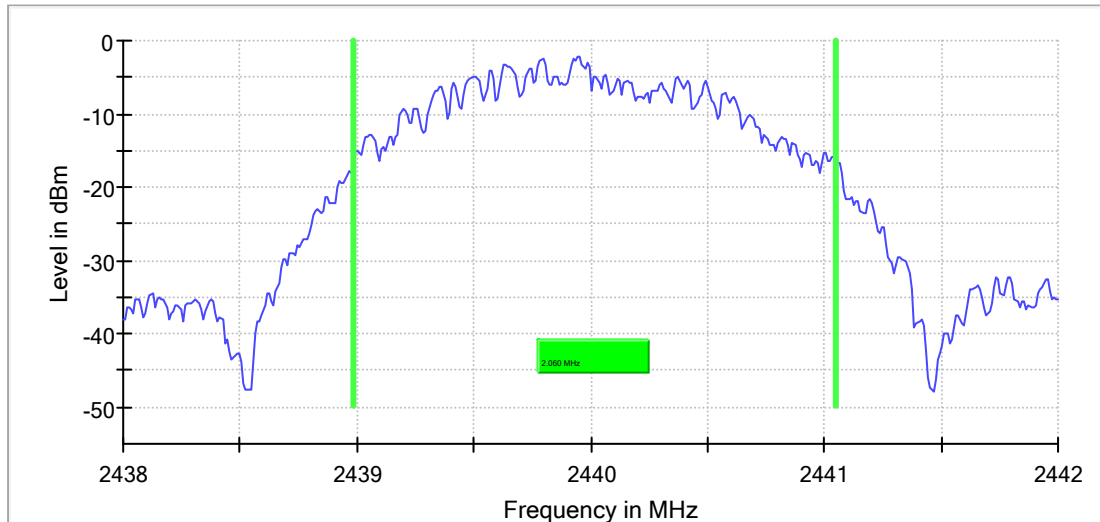
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.060000	---	---	2438.985000	2441.045000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2440.000000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth



99 % Bandwidth

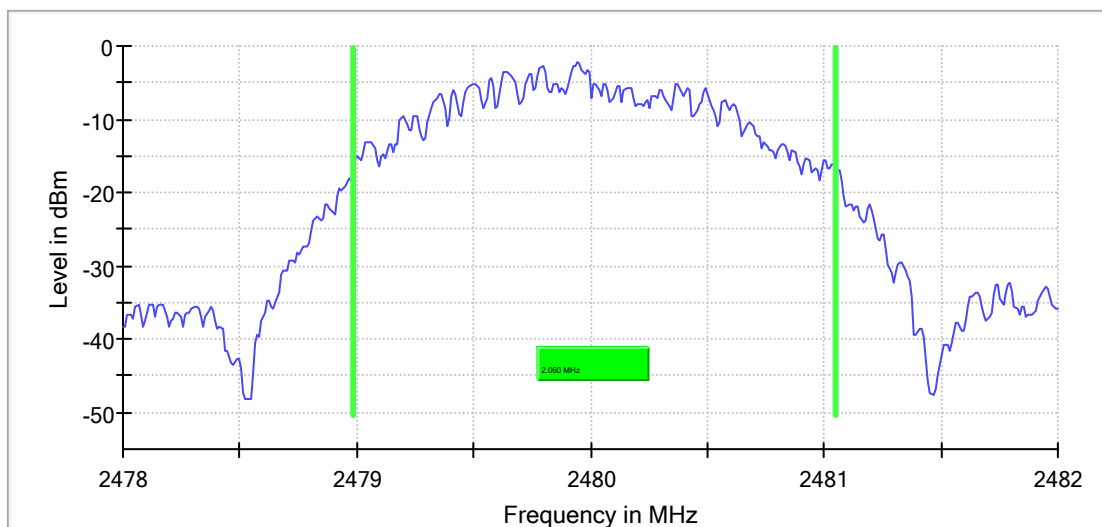
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.060000	---	---	2478.985000	2481.045000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth



Appendix A.4: Test Results of Frequency stability

Test Channel (MHz)	2402
-----------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2401.9911	-8.9	-3.71	10
AC 120V	2401.9919	-8.1	-3.37	
DC 132V	2401.9923	-7.7	-3.21	

Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2401.9910	-9	-3.75	10
-20	2401.9911	-8.9	-3.71	
-10	2401.9912	-8.8	-3.66	
0	2401.9915	-8.5	-3.54	
10	2401.9918	-8.2	-3.41	
20	2401.9919	-8.1	-3.37	
30	2401.9922	-7.8	-3.25	
40	2401.9923	-7.7	-3.21	
50	2401.9926	-7.4	-3.08	
55	2401.9929	-7.1	-2.96	

Test Channel (MHz)	2440
-----------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2439.9925	-7.5	-3.07	10
AC 120V	2439.9928	-7.2	-2.95	
DC 132V	2439.9935	-6.5	-2.66	

Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2439.9919	-8.1	-3.32	10
-20	2439.9921	-7.9	-3.24	
-10	2439.9922	-7.8	-3.20	
0	2439.9925	-7.5	-3.07	
10	2439.9927	-7.3	-2.99	
20	2439.9928	-7.2	-2.95	
30	2439.9933	-6.7	-2.75	
40	2439.9935	-6.5	-2.66	
50	2439.9938	-6.2	-2.54	
55	2439.9939	-6.1	-2.50	

Test Channel (MHz)	2480
-----------------------	------

Test result of frequency tolerance of voltage variation

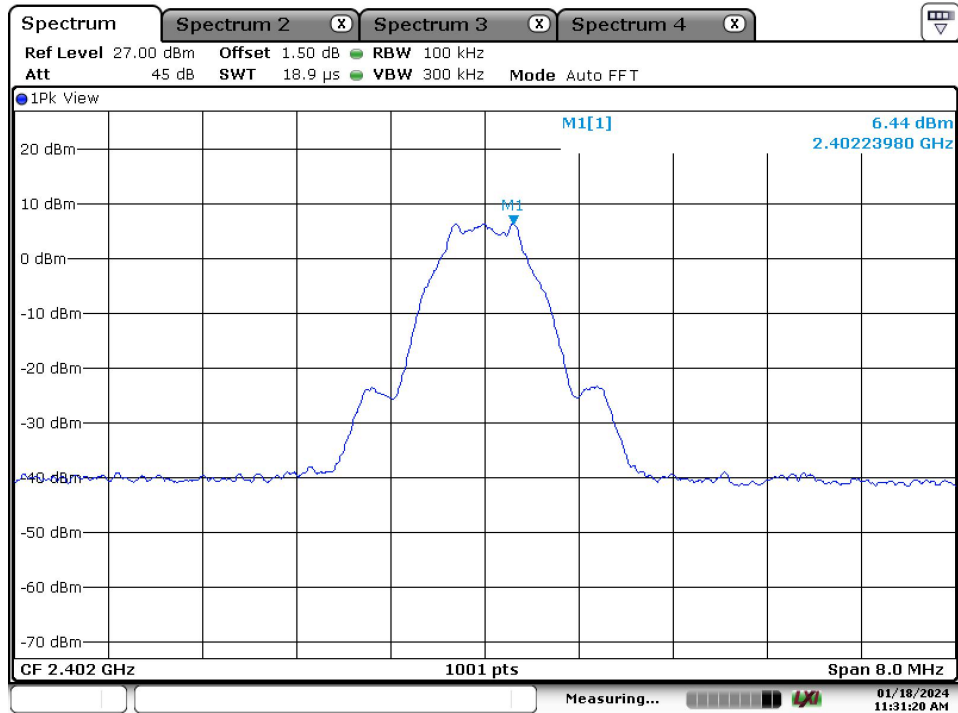
Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2479.9917	-8.3	-3.35	10
AC 120V	2479.9924	-7.6	-3.06	
DC 132V	2479.9928	-7.2	-2.90	

Test result of frequency tolerance of temperature variation

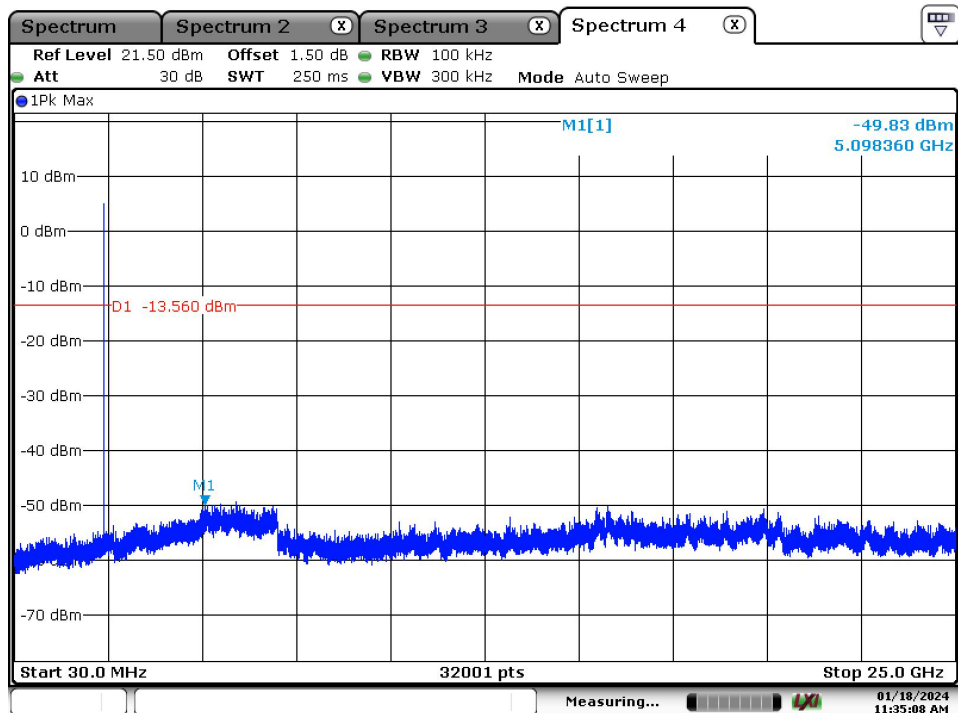
Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2479.9909	-9.1	-3.67	10
-20	2479.9912	-8.8	-3.55	
-10	2479.9914	-8.6	-3.47	
0	2479.9917	-8.3	-3.35	
10	2479.9920	-8	-3.23	
20	2479.9924	-7.6	-3.06	
30	2479.9928	-7.2	-2.90	
40	2479.9934	-6.6	-2.66	
50	2479.9936	-6.4	-2.58	
55	2479.9939	-6.1	-2.46	

Appendix A.5: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

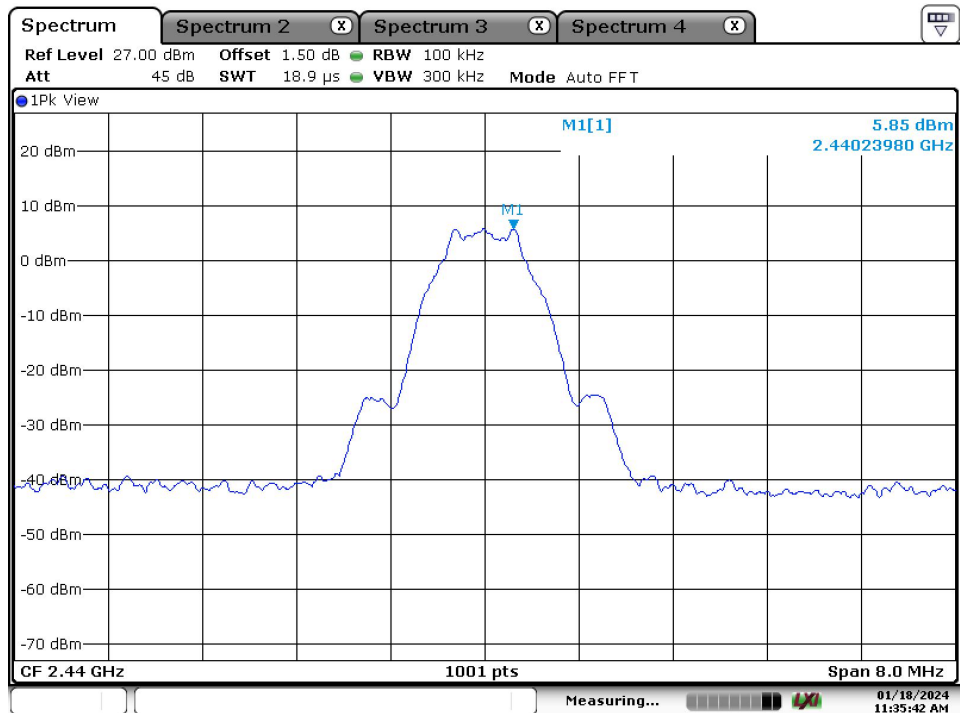
Bluetooth LE Mode, 1Mbps



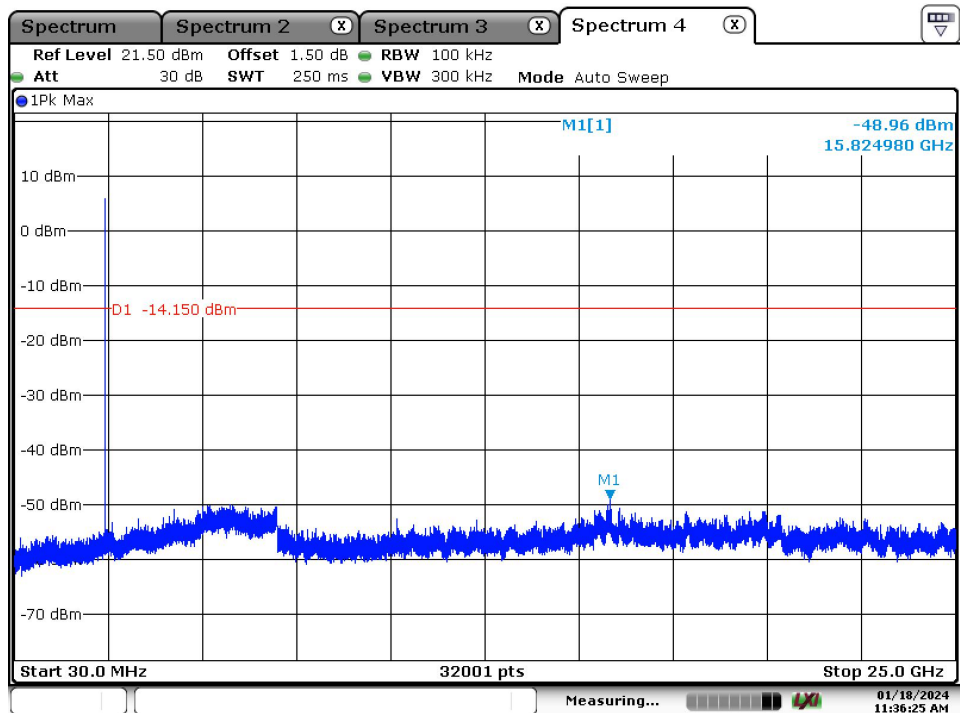
Date: 18.JAN.2024 11:31:20



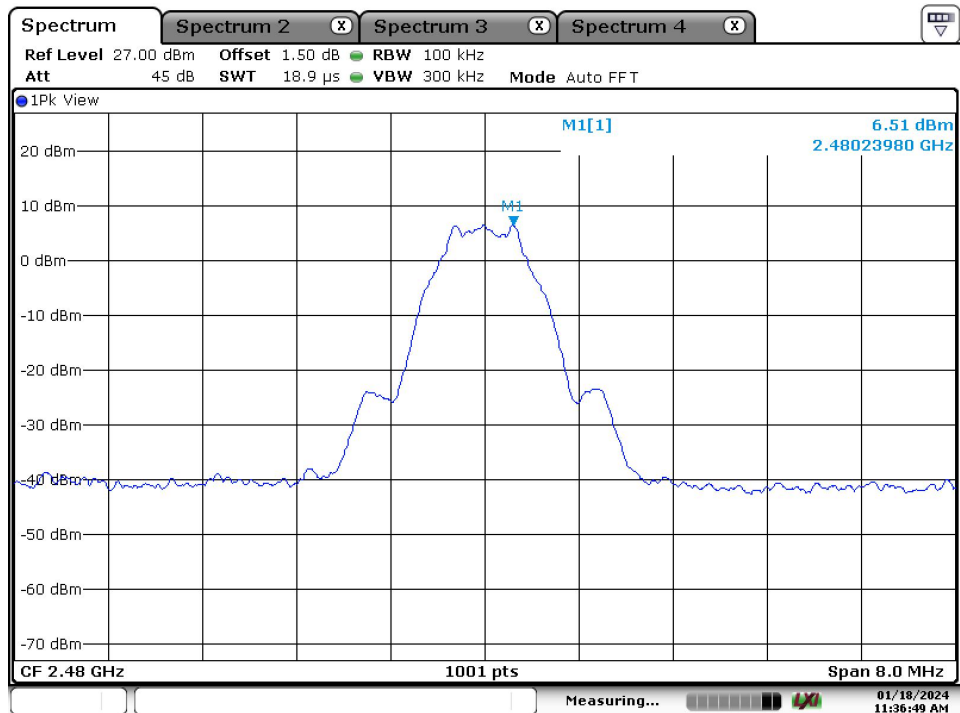
Date: 18.JAN.2024 11:35:08



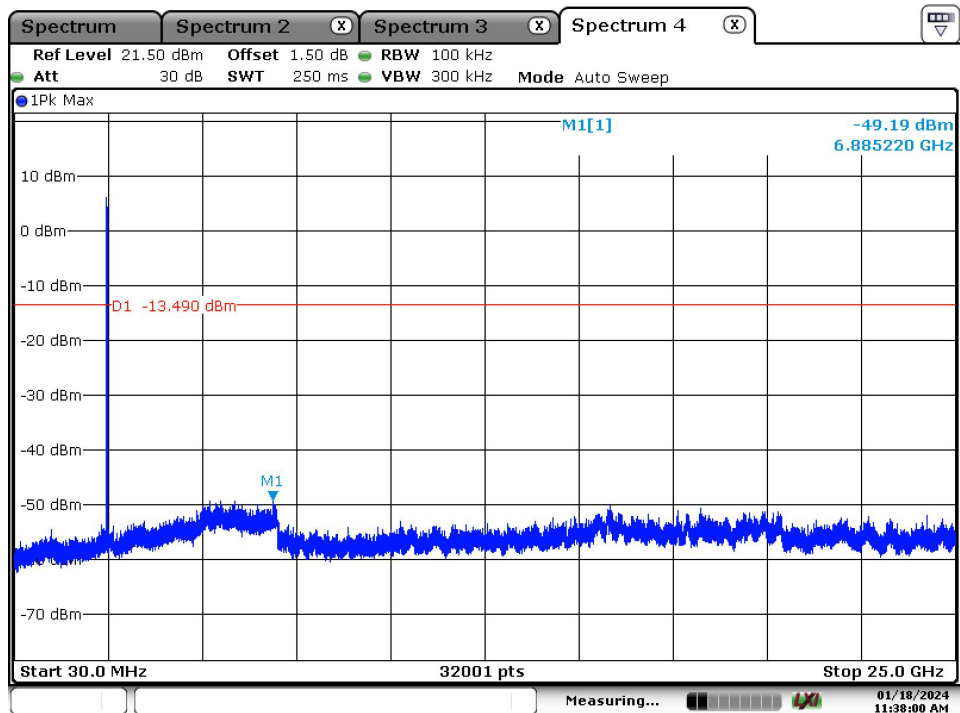
Date: 18.JAN.2024 11:35:41



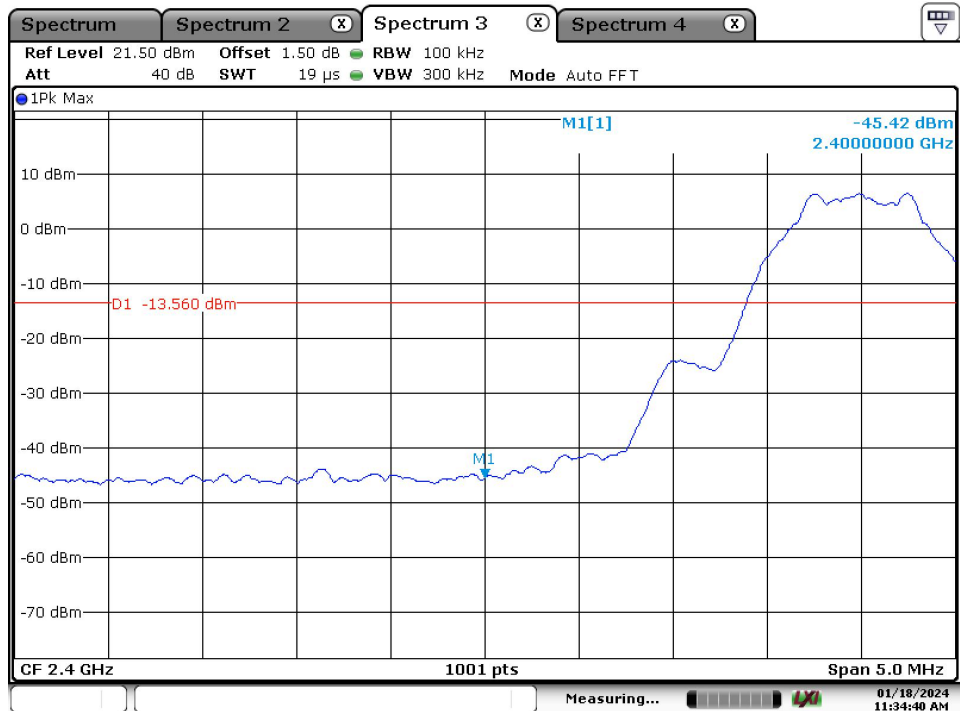
Date: 18.JAN.2024 11:36:25



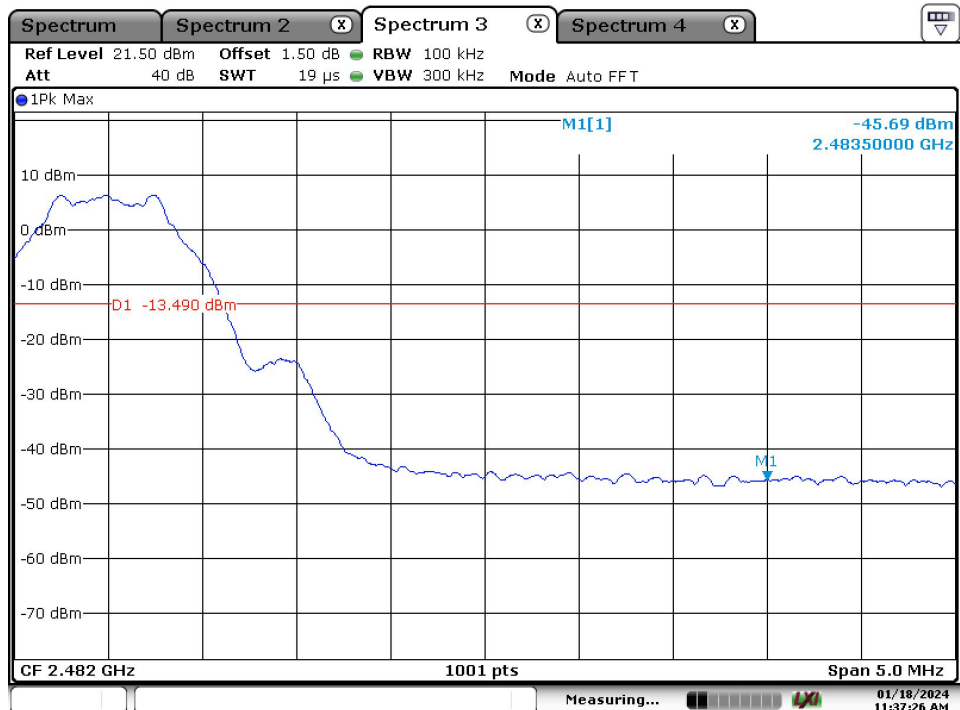
Date: 18.JAN.2024 11:36:48



Date: 18.JAN.2024 11:38:00

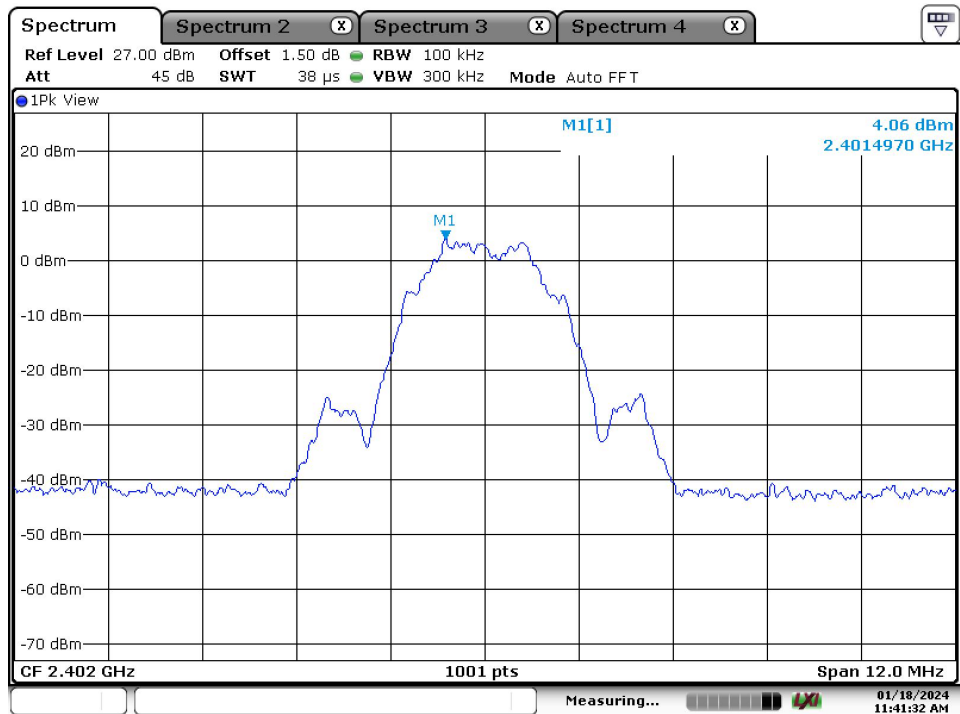


Date: 18.JAN.2024 11:34:40

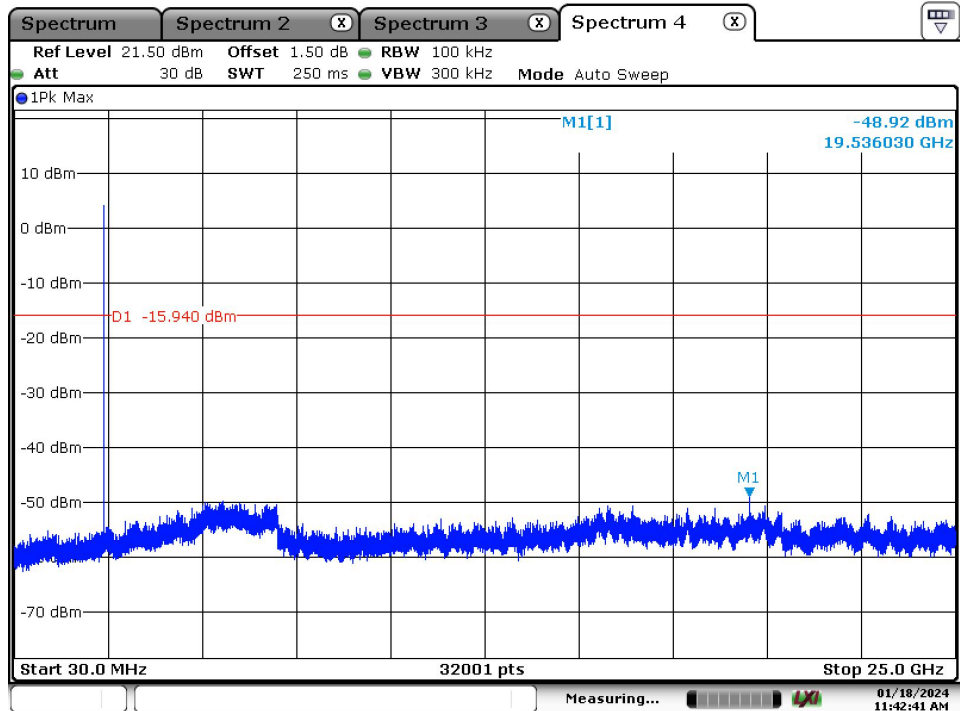


Date: 18.JAN.2024 11:37:26

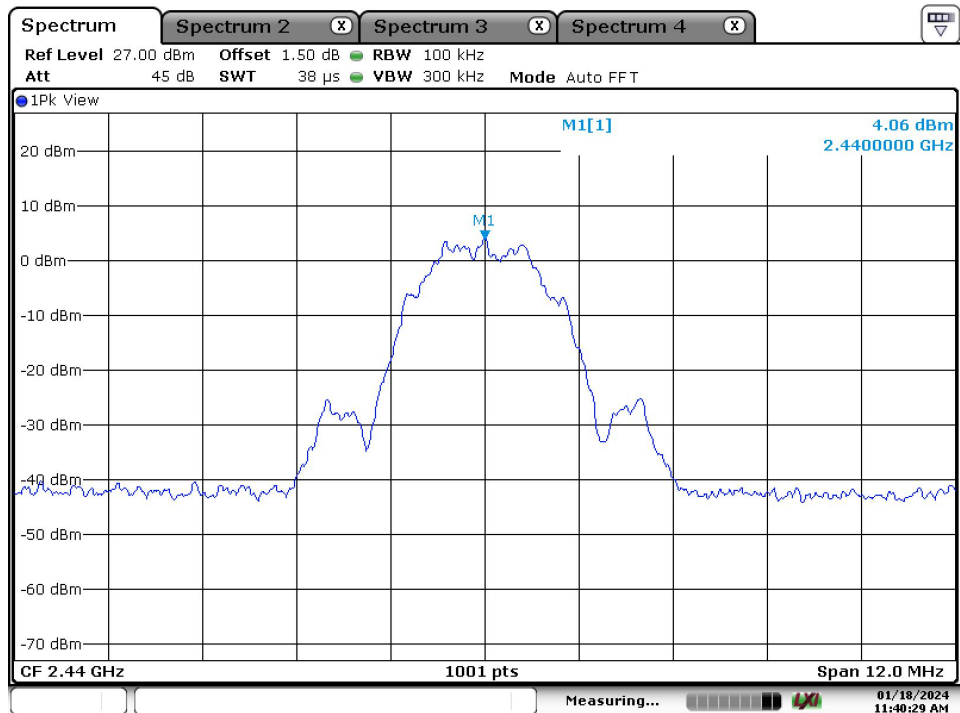
Bluetooth LE Mode, 2Mbps



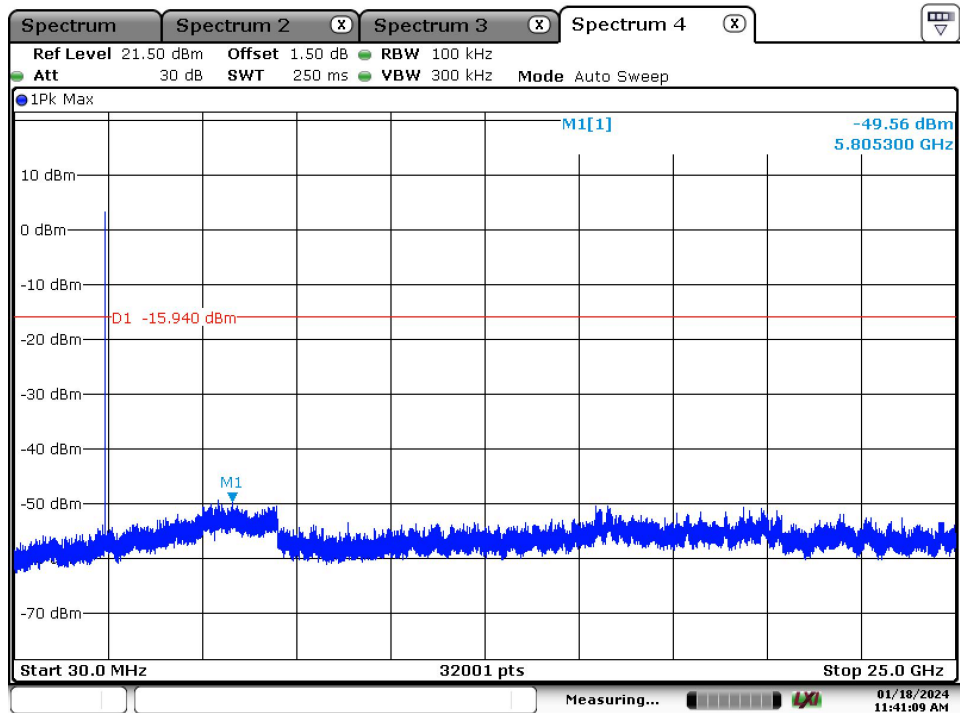
Date: 18.JAN.2024 11:41:32



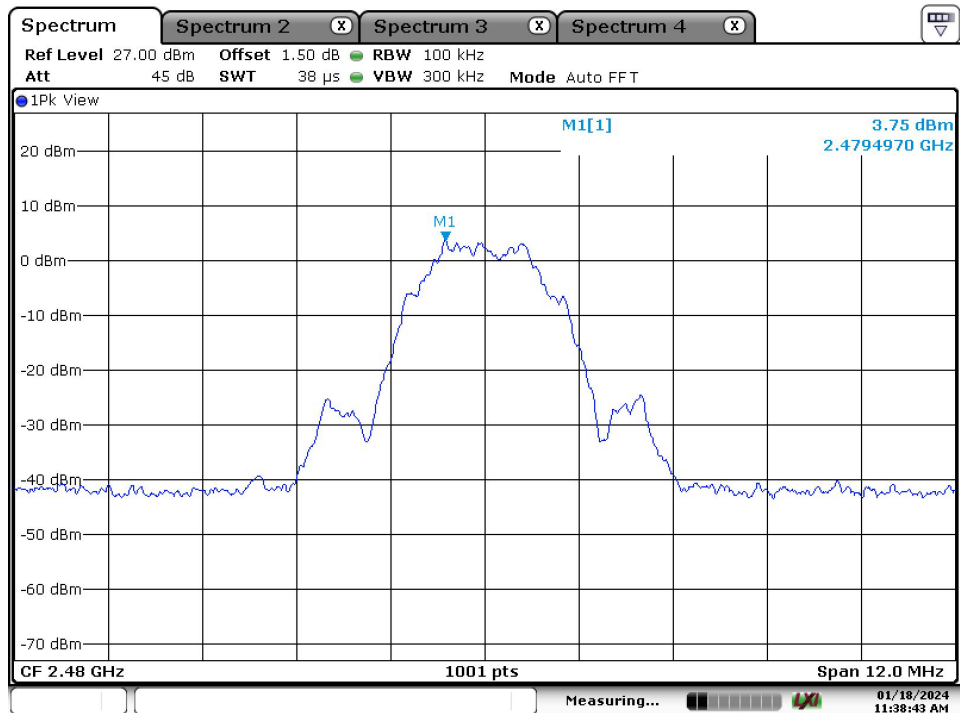
Date: 18.JAN.2024 11:42:41



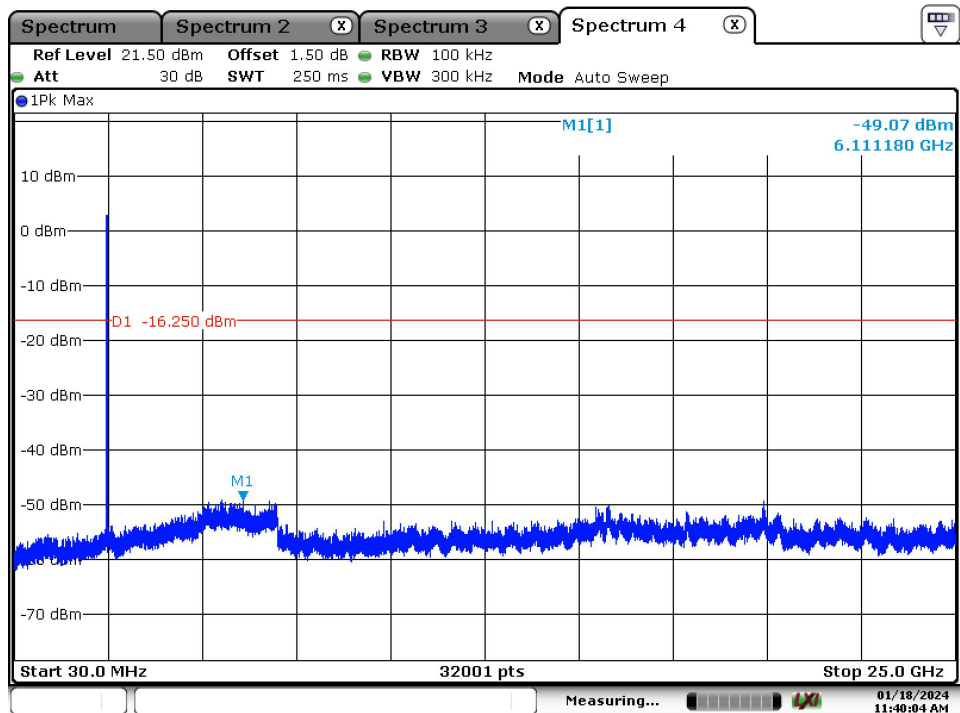
Date: 18.JAN.2024 11:40:29



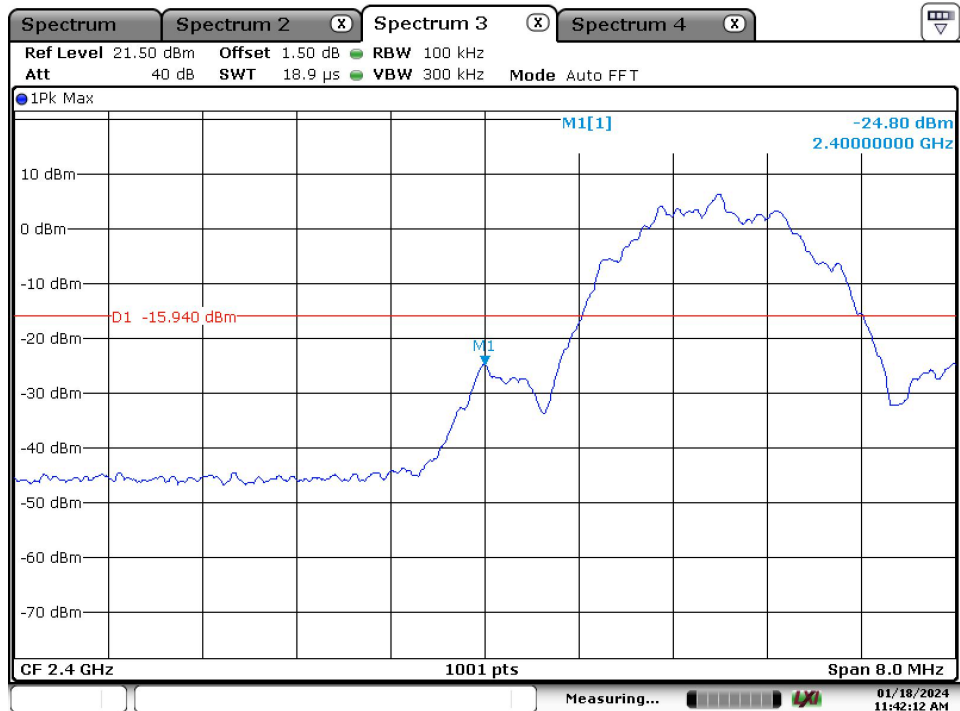
Date: 18.JAN.2024 11:41:09



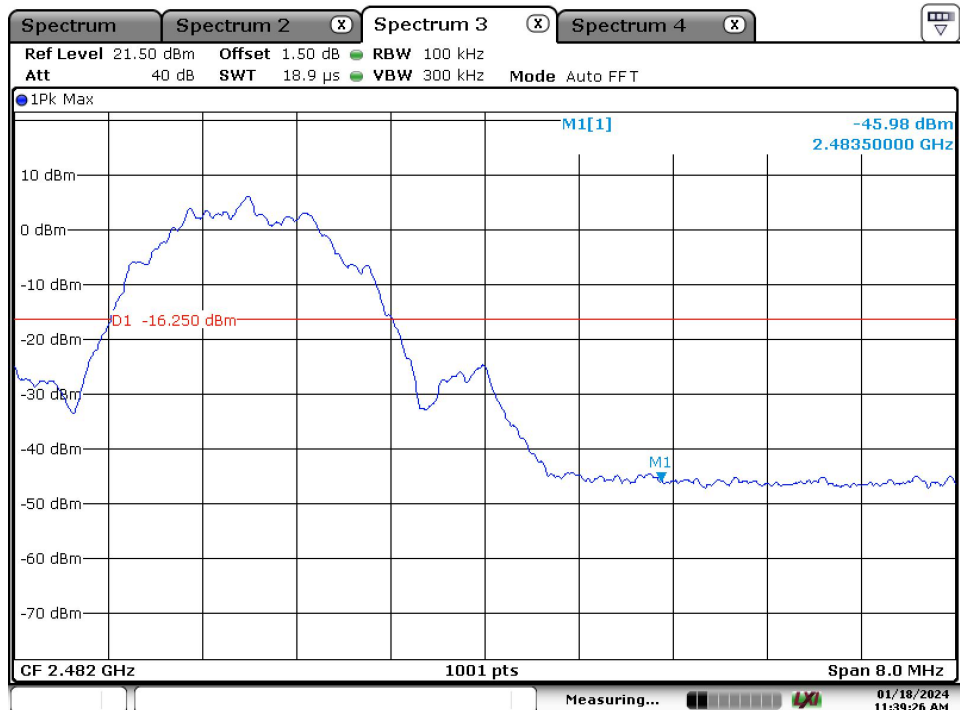
Date: 18.JAN.2024 11:38:43



Date: 18.JAN.2024 11:40:04



Date: 18.JAN.2024 11:42:12



Date: 18.JAN.2024 11:39:25

Appendix A.6: Test Results of Radiated Spurious Emissions

Note:

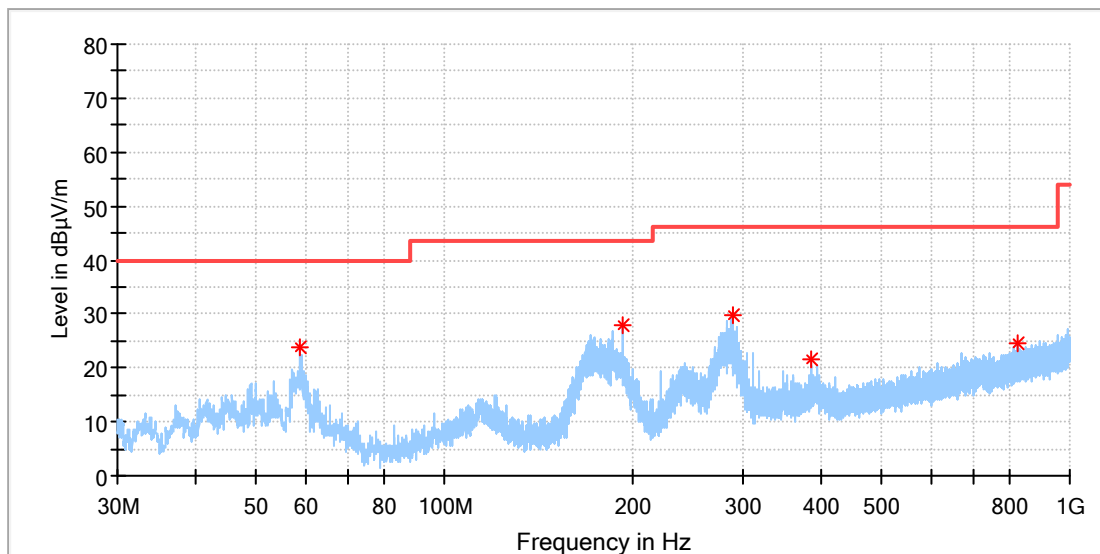
- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the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

Bluetooth LE Mode, 1Mbps

30 MHz - 1GHz

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_Mid channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

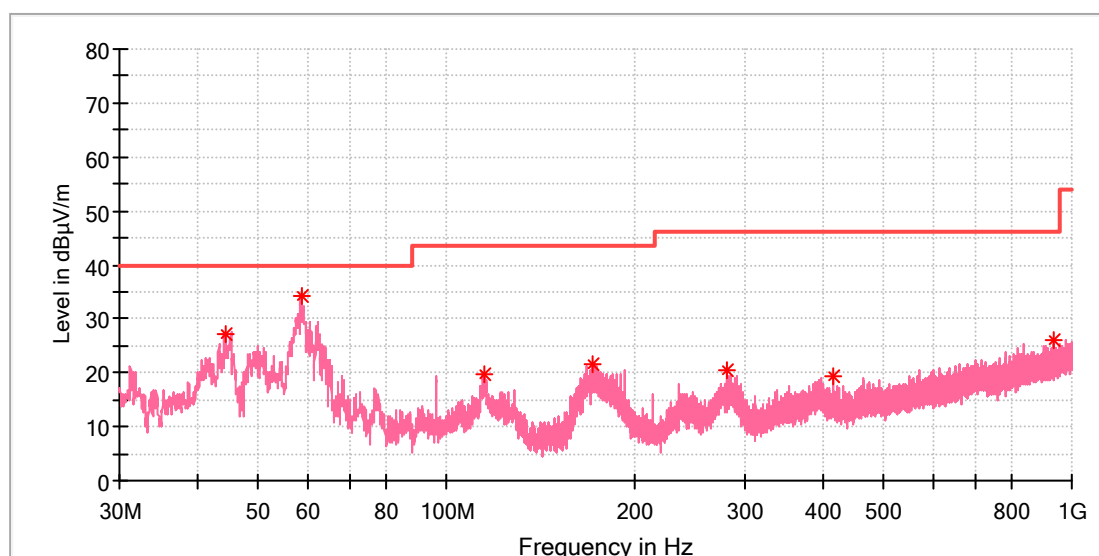


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
58.764231	23.72	40.00	16.28	100.0	H	120.0	-19.2
192.773462	27.97	43.50	15.53	100.0	H	308.0	-19.7
289.064615	29.65	46.00	16.35	100.0	H	96.0	-16.9
385.803462	21.55	46.00	24.45	100.0	H	128.0	-14.4
823.721154	24.63	46.00	21.37	100.0	H	63.0	-6.3

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_Mid channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

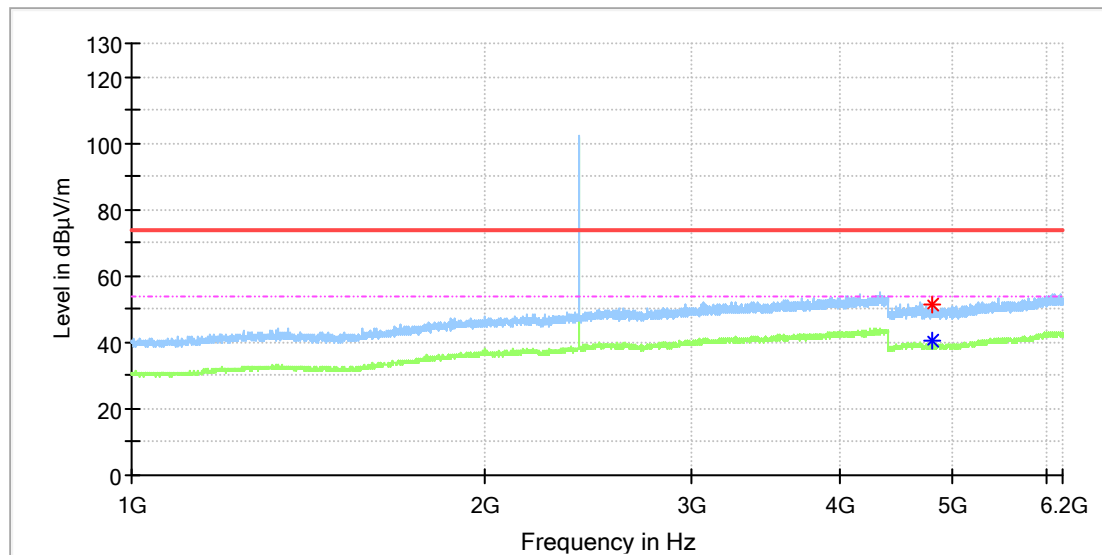
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
44.438077	27.31	40.00	12.69	100.0	V	15.0	-19.3
58.615000	34.37	40.00	5.64	100.0	V	39.0	-19.1
114.912308	19.76	43.50	23.74	100.0	V	250.0	-20.0
171.582692	21.49	43.50	22.01	100.0	V	39.0	-21.5
281.006154	20.55	46.00	25.45	100.0	V	217.0	-17.0
415.052692	19.35	46.00	26.65	100.0	V	47.0	-13.8
936.800769	25.88	46.00	20.12	100.0	V	79.0	-5.0

1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental.

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_Low channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

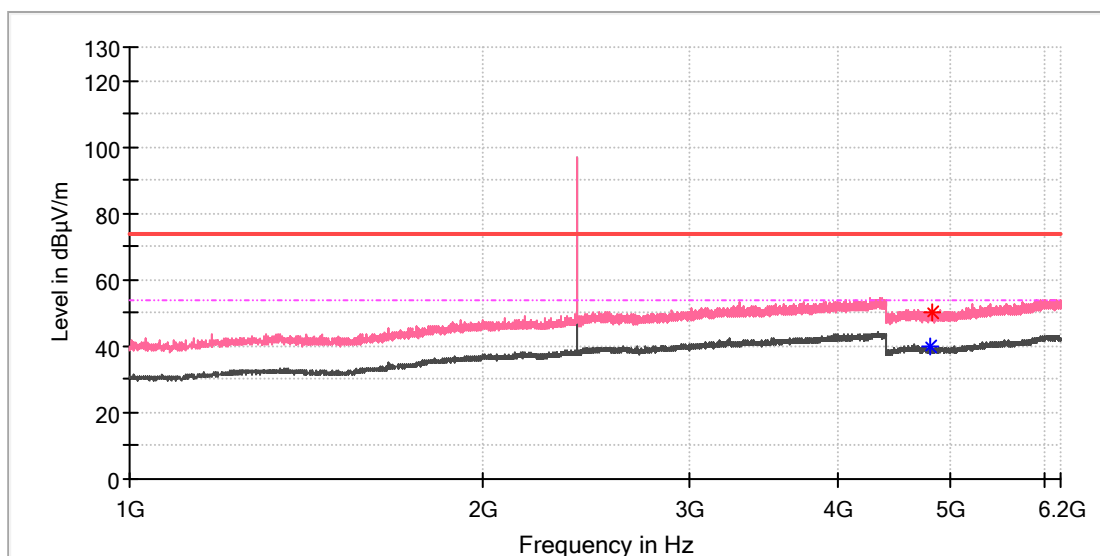


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	---	40.23	54.00	13.77	150.0	H	134.0	11.8
4807.500000	51.32	---	74.00	22.68	150.0	H	89.0	11.8

EUT Information

EUT Name: Bluetooth Ambient Light
Model: PARTYLIGHT BEAM
Test Mode: BLE 1M_Low channel
Test Voltage:: AC 120V/60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

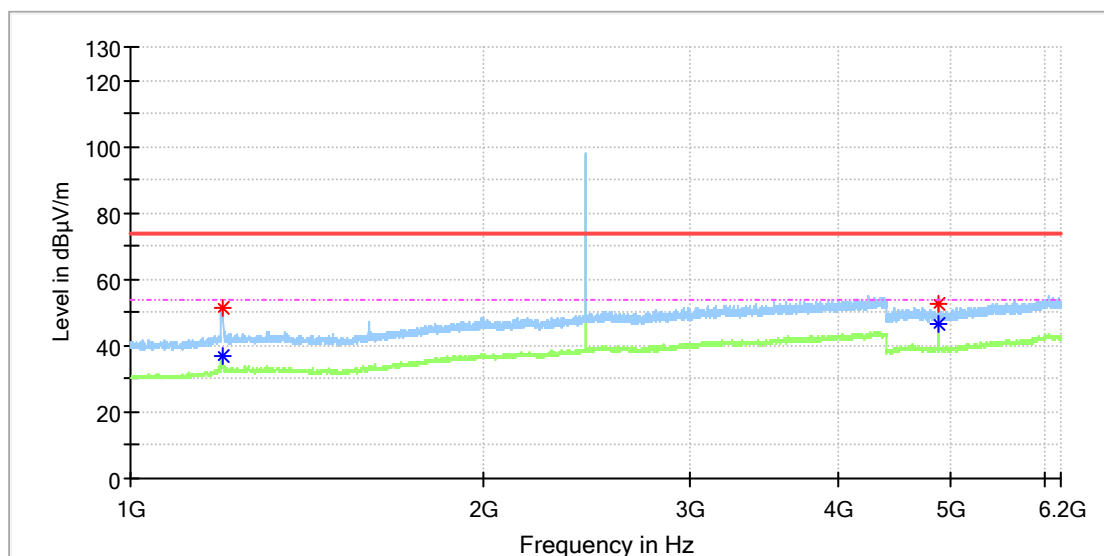


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.500000	---	39.73	54.00	14.27	150.0	V	247.0	11.8
4812.500000	50.04	---	74.00	23.96	150.0	V	270.0	11.8

EUT Information

EUT Name: Bluetooth Ambient Light
Model: PARTYLIGHT BEAM
Test Mode: BLE 1M_Mid channel
Test Voltage:: AC 120V/60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

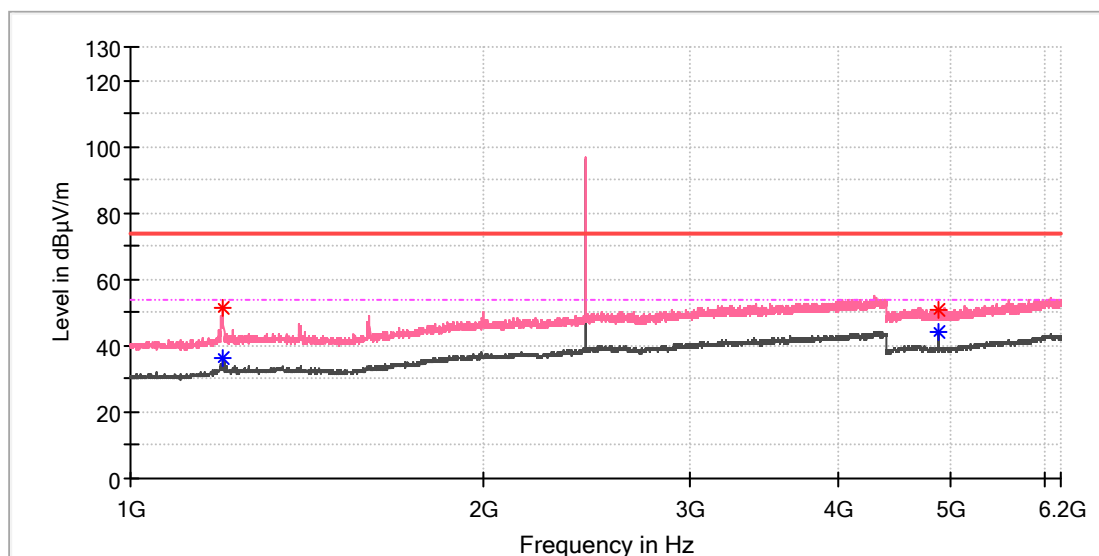


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1197.000000	---	37.03	54.00	16.97	150.0	H	239.0	1.1
1198.000000	51.38	---	74.00	22.62	150.0	H	239.0	1.1
4880.000000	52.64	---	74.00	21.36	150.0	H	294.0	11.8
4880.000000	---	46.81	54.00	7.19	150.0	H	294.0	11.8

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_Mid channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

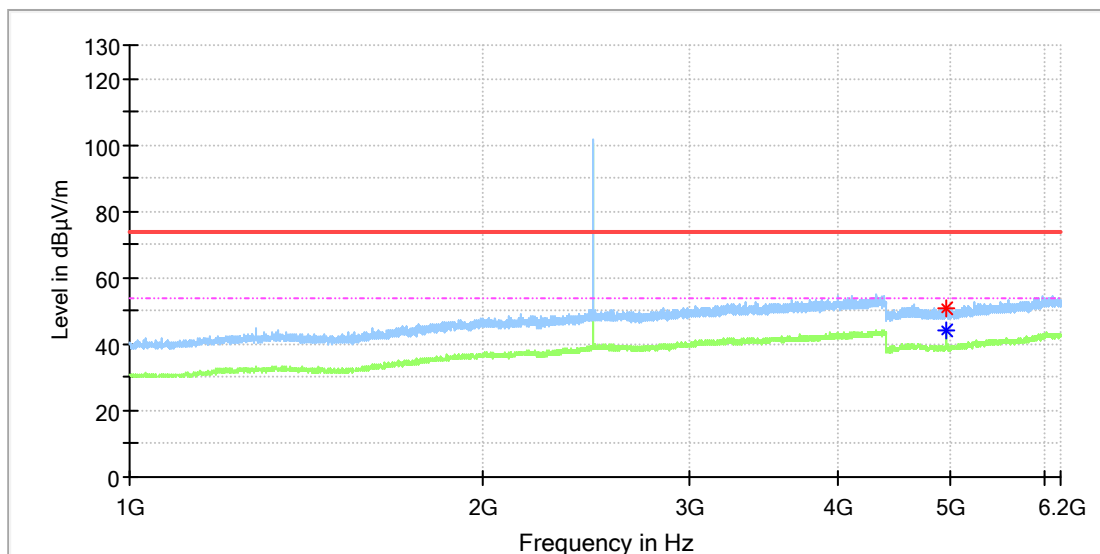


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1197.500000	51.29	---	74.00	22.71	150.0	V	290.0	1.1
1197.500000	---	36.28	54.00	17.72	150.0	V	290.0	1.1
4879.500000	51.09	---	74.00	22.91	150.0	V	181.0	11.8
4879.500000	---	44.04	54.00	9.96	150.0	V	181.0	11.8

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_High channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

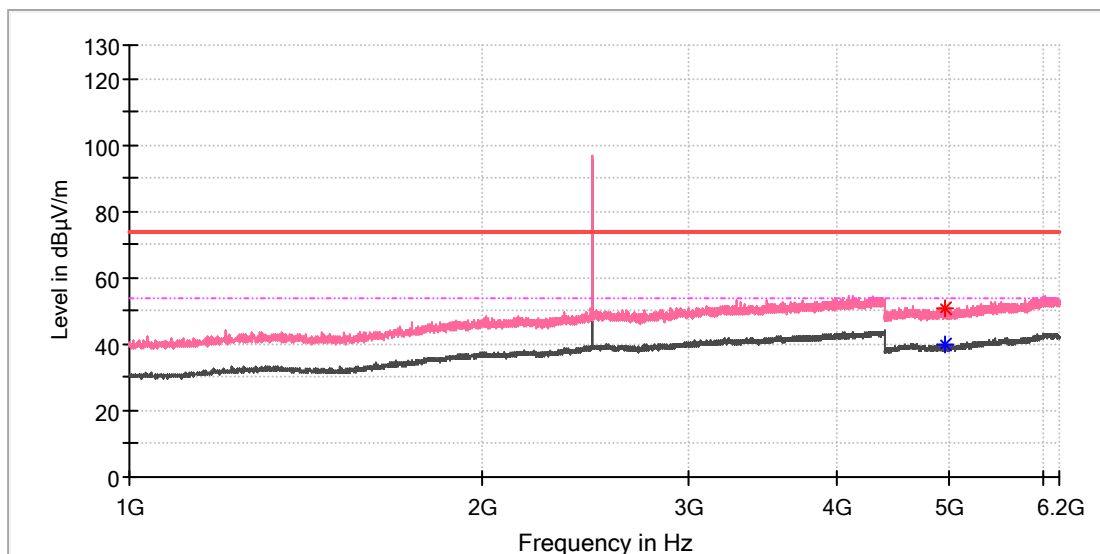


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	51.00	---	74.00	23.00	150.0	H	193.0	11.8
4960.000000	---	43.85	54.00	10.15	150.0	H	193.0	11.8

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_High channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

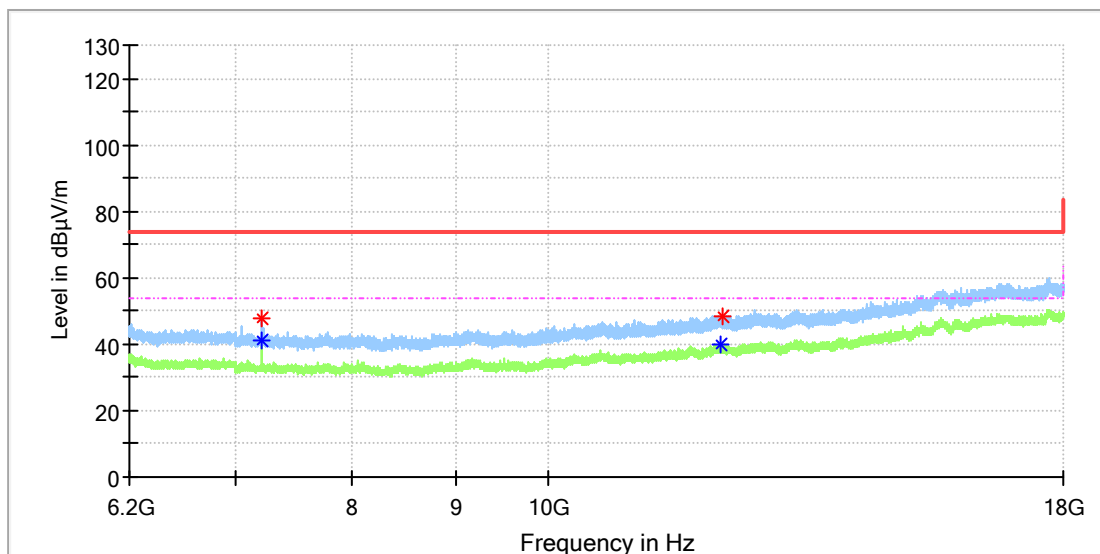


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4956.000000	50.90	---	74.00	23.10	150.0	V	0.0	11.8
4960.000000	---	39.71	54.00	14.29	150.0	V	66.0	11.8

EUT Information

EUT Name: Bluetooth Ambient Light
Model: PARTYLIGHT BEAM
Test Mode: BLE 1M_Low channel
Test Voltage:: AC 120V/60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

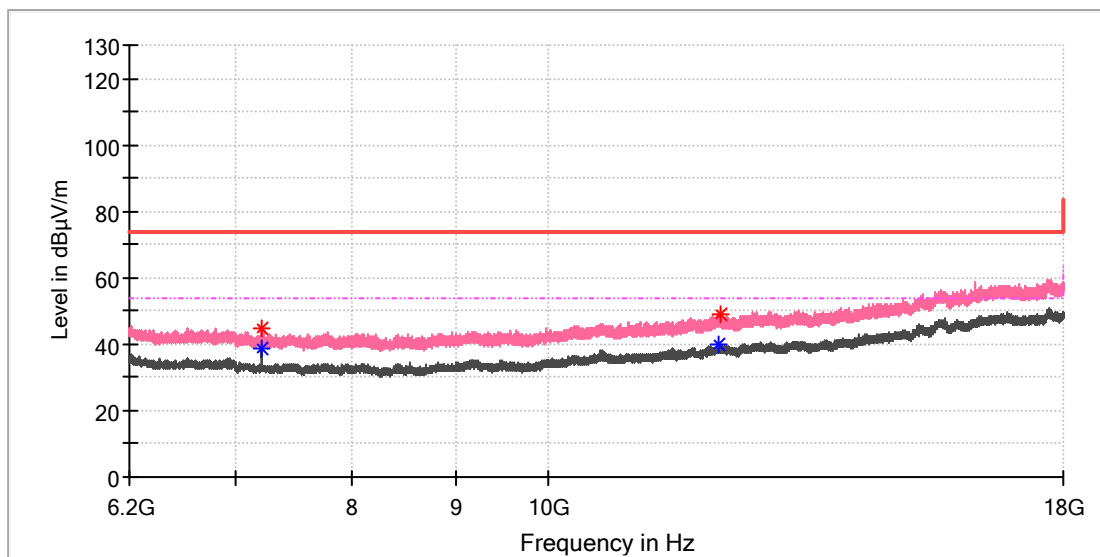


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.458333	47.48	---	74.00	26.52	150.0	H	119.0	8.8
7205.458333	---	41.06	54.00	12.94	150.0	H	119.0	8.8
12180.633333	---	39.78	54.00	14.22	150.0	H	167.0	14.6
12192.925000	48.50	---	74.00	25.50	150.0	H	191.0	14.6

EUT Information

EUT Name: Bluetooth Ambient Light
Model: PARTYLIGHT BEAM
Test Mode: BLE 1M_Low channel
Test Voltage:: AC 120V/60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

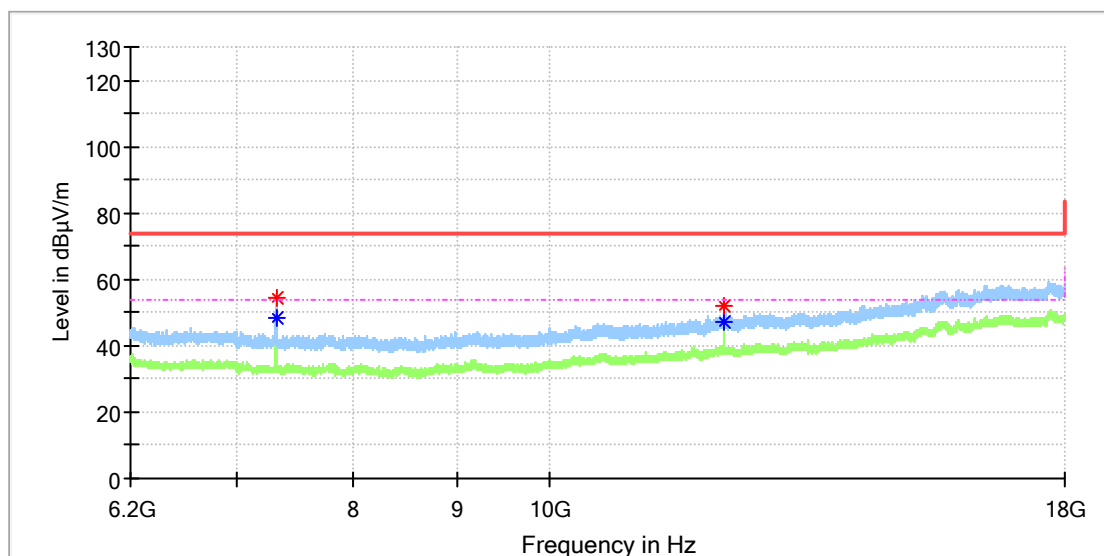


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	44.88	---	74.00	29.12	150.0	V	191.0	8.8
7205.458333	---	38.72	54.00	15.28	150.0	V	191.0	8.8
12139.825000	---	40.19	54.00	13.81	150.0	V	47.0	14.4
12186.533333	48.92	---	74.00	25.08	150.0	V	12.0	14.6

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_Mid channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

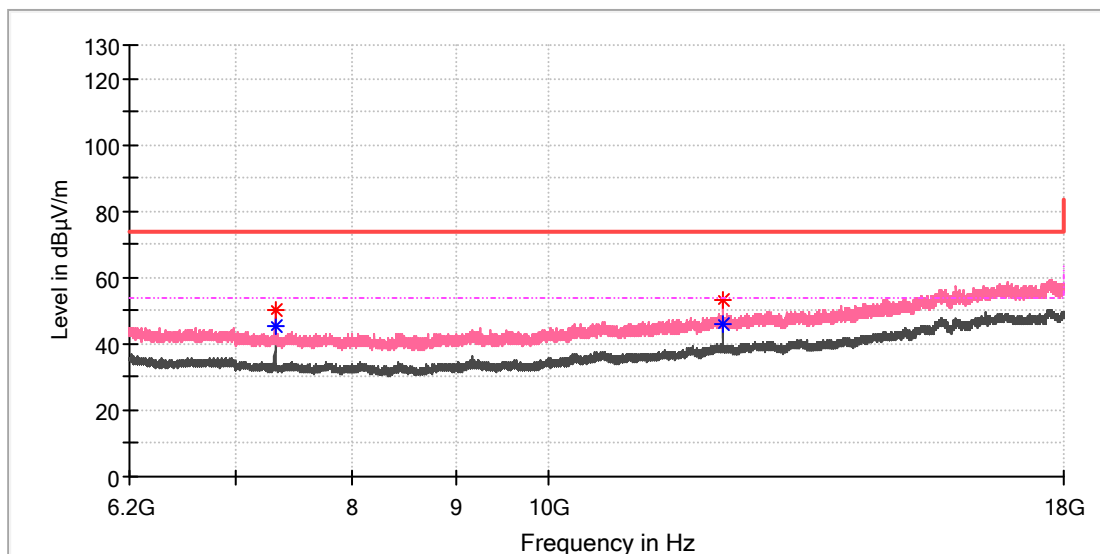


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	---	48.48	54.00	5.52	150.0	H	60.0	8.2
7320.016667	54.28	---	74.00	19.72	150.0	H	60.0	8.2
12198.825000	52.05	---	74.00	21.95	150.0	H	241.0	14.7
12199.316667	---	47.39	54.00	6.61	150.0	H	157.0	14.7

EUT Information

EUT Name: Bluetooth Ambient Light
Model: PARTYLIGHT BEAM
Test Mode: BLE 1M_Mid channel
Test Voltage:: AC 120V/60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

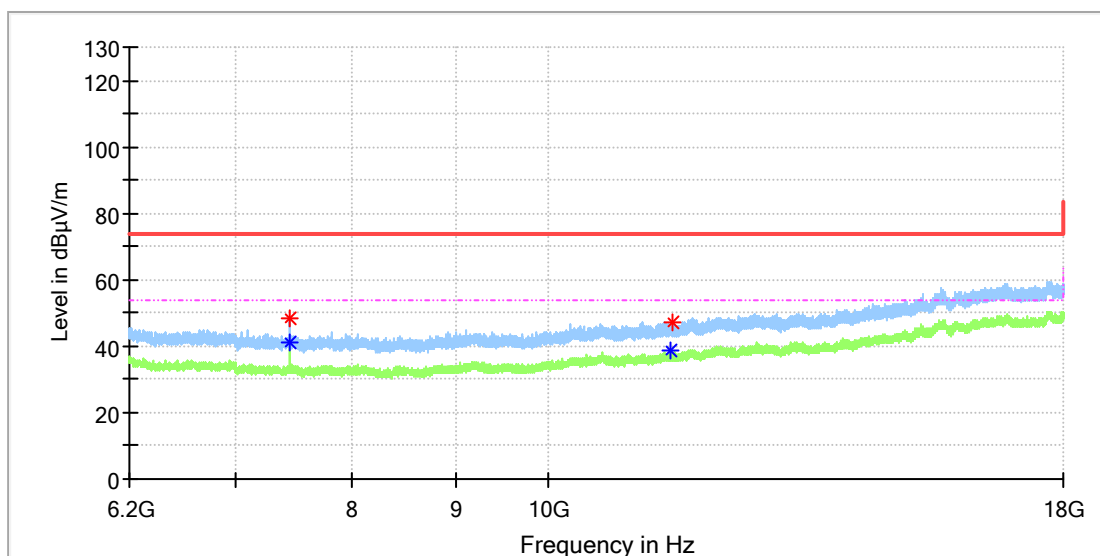


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	50.01	---	74.00	23.99	150.0	V	94.0	8.2
7319.525000	---	45.63	54.00	8.37	150.0	V	94.0	8.2
12200.791667	53.33	---	74.00	20.67	150.0	V	57.0	14.7
12200.791667	---	45.95	54.00	8.05	150.0	V	57.0	14.7

EUT Information

EUT Name: Bluetooth Ambient Light
Model: PARTYLIGHT BEAM
Test Mode: BLE 1M_High channel
Test Voltage:: AC 120V/60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

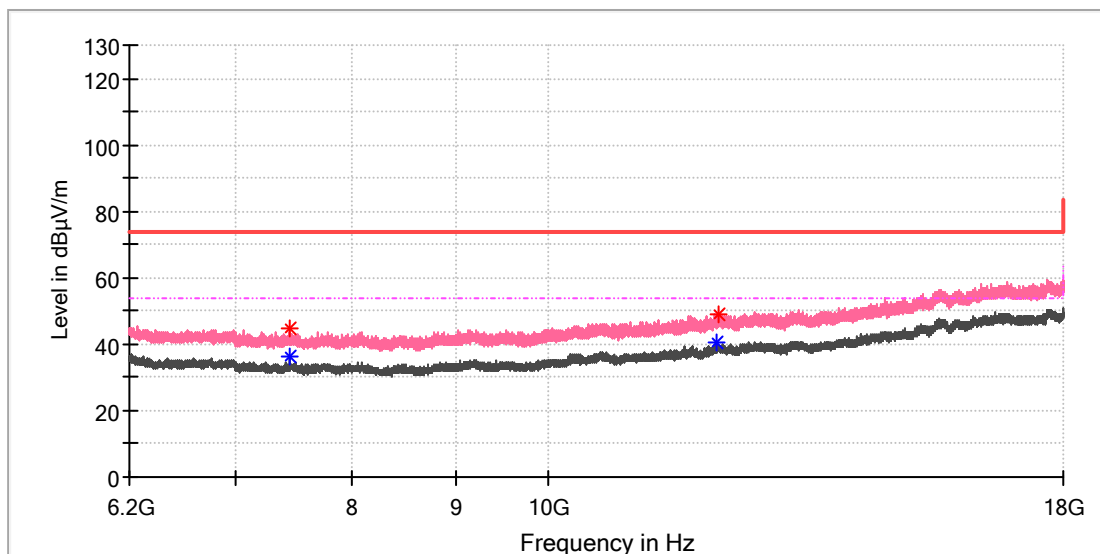


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.983333	---	41.04	54.00	12.96	150.0	H	204.0	8.4
7440.475000	48.08	---	74.00	25.92	150.0	H	204.0	8.4
11504.100000	---	38.93	54.00	15.07	150.0	H	324.0	13.7
11525.241667	47.04	---	74.00	26.96	150.0	H	59.0	13.6

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 1M_High channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

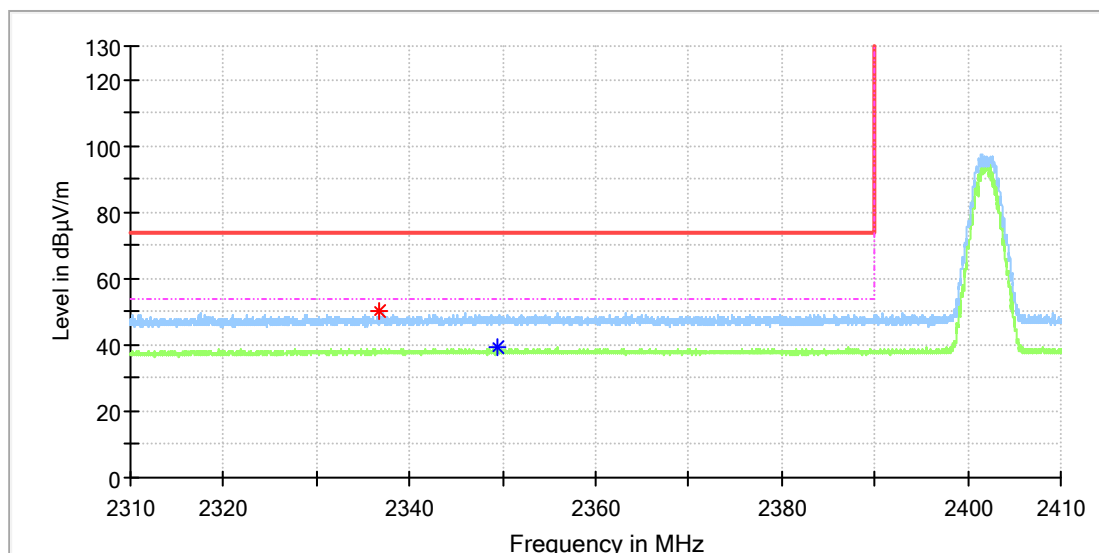
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.491667	44.68	---	74.00	29.32	150.0	V	9.0	8.4
7439.983333	---	36.49	54.00	17.51	150.0	V	154.0	8.4
12121.141667	---	40.43	54.00	13.57	150.0	V	251.0	14.3
12148.675000	48.86	---	74.00	25.14	150.0	V	70.0	14.4

Appendix A.7: Test Results of Radiated Emissions in Restricted Bands

Bluetooth LE Mode, 2Mbps

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 2M_Low channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

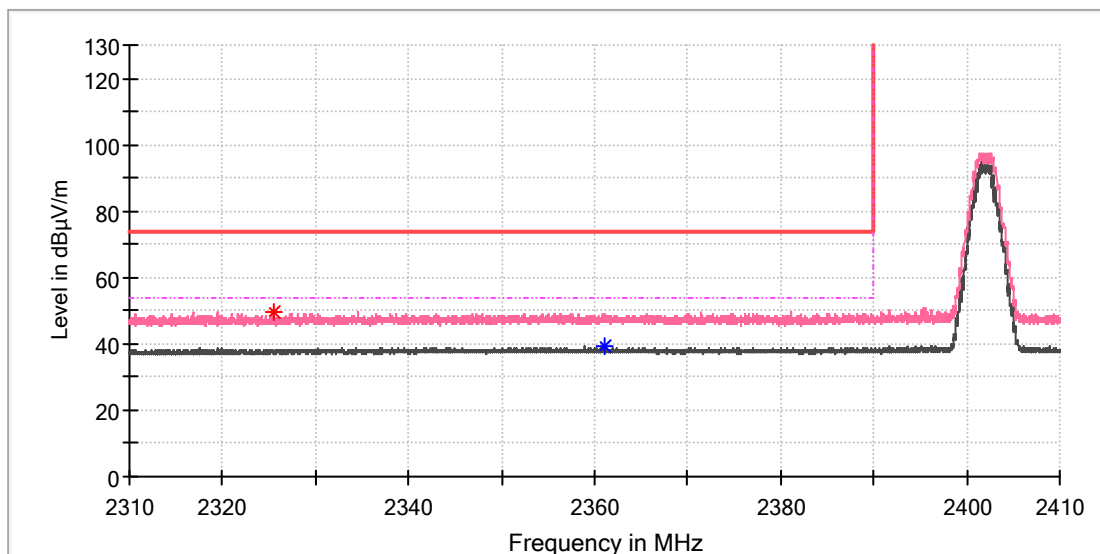


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2336.779412	50.07	---	74.00	23.93	150.0	H	302.0	6.8
2349.411765	---	39.00	54.00	15.00	150.0	H	356.0	6.9

EUT Information

EUT Name: Bluetooth Ambient Light
Model: PARTYLIGHT BEAM
Test Mode: BLE 2M_Low channel
Test Voltage:: AC 120V/60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

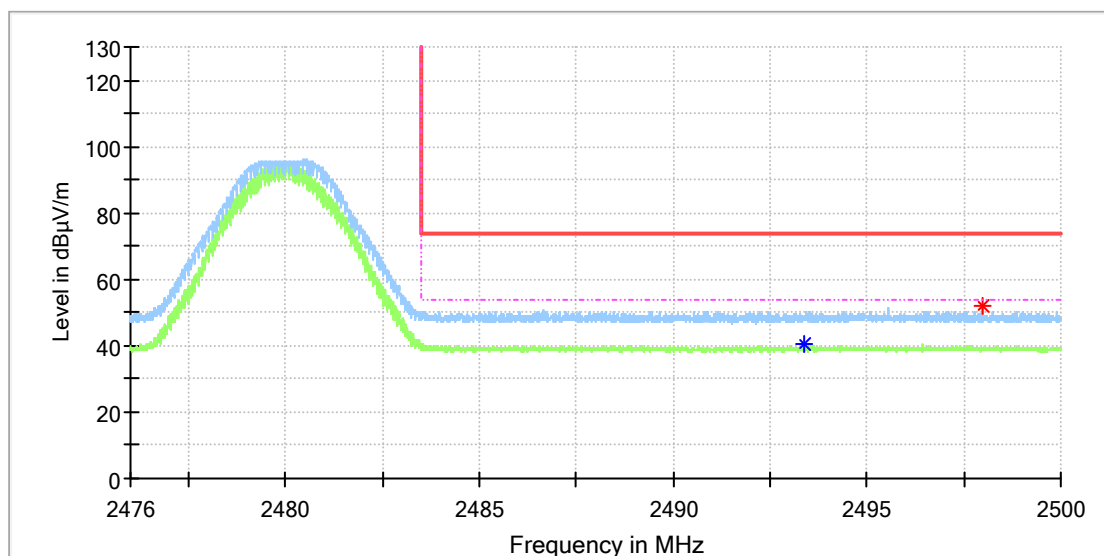


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2325.411765	49.43	---	74.00	24.57	150.0	V	228.0	6.7
2361.029412	---	39.29	54.00	14.71	150.0	V	193.0	6.9

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 2M_High channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

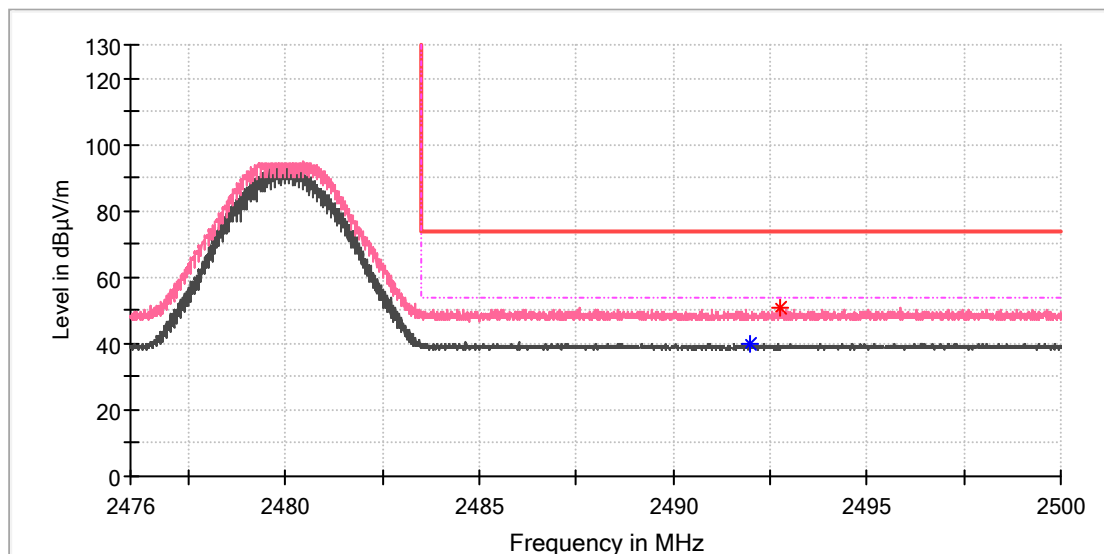


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2493.404412	---	40.39	54.00	13.61	150.0	H	98.0	7.4
2497.975000	51.73	---	74.00	22.27	150.0	H	146.0	7.4

EUT Information

EUT Name:	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	BLE 2M_High channel
Test Voltage::	AC 120V/60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



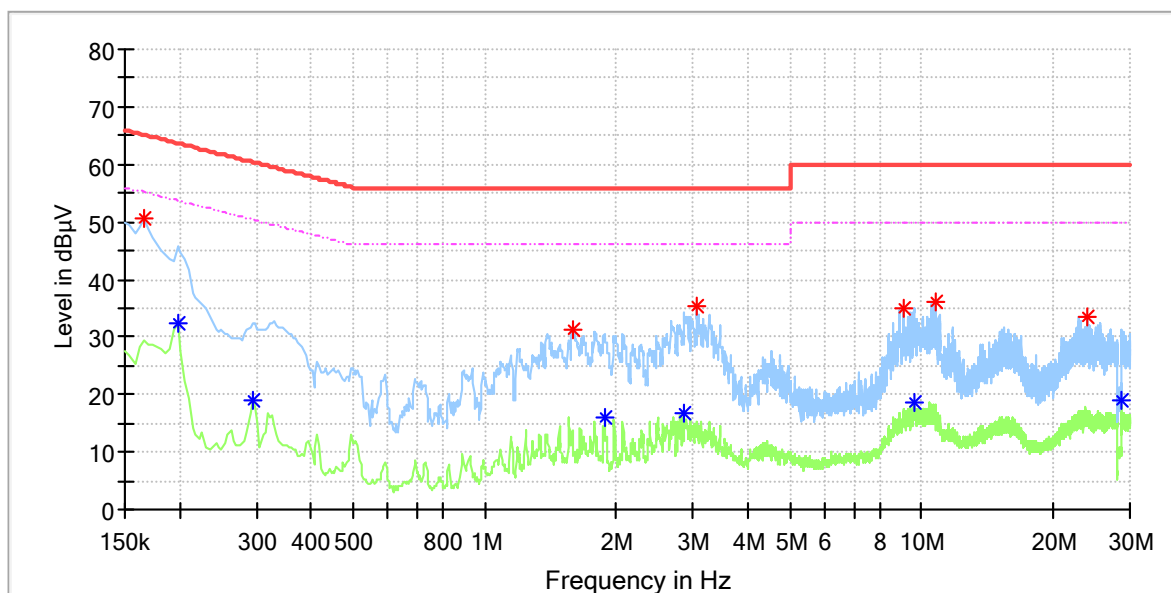
Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2491.992647	---	40.05	54.00	13.95	150.0	V	274.0	7.4
2492.733824	51.06	---	74.00	22.94	150.0	V	55.0	7.4

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

EUT Information

EUT Name	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	operating with Bluetooth connected
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15B
Test By:/Review By:	Soloman Wu/ Gary Chen
Tem./Hum./Pressure:	23.3°C/54.8%/101kPa
Remark:	SR1

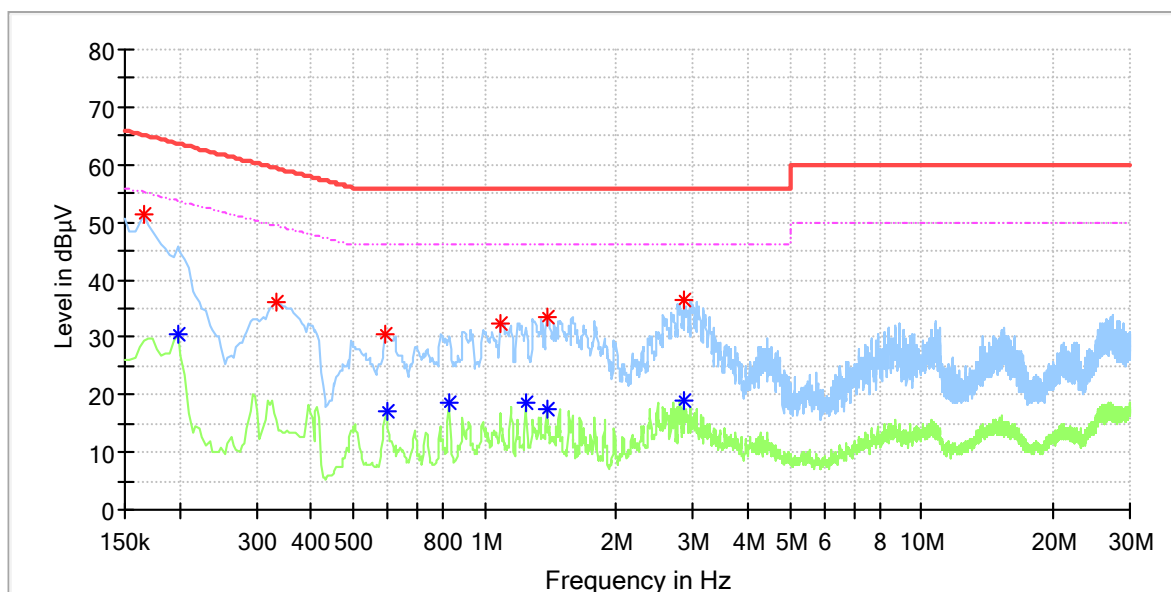


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.166000	50.46	---	65.16	14.70	L1	9.7
0.198000	---	32.55	53.69	21.15	L1	9.8
0.294000	---	19.06	50.41	31.35	L1	9.8
1.596000	31.30	---	56.00	24.70	L1	9.8
1.880000	---	15.86	46.00	30.14	L1	9.8
2.868000	---	16.77	46.00	29.23	L1	9.9
3.064000	35.42	---	56.00	20.58	L1	9.9
9.092000	35.15	---	60.00	24.85	L1	9.9
9.580000	---	18.69	50.00	31.31	L1	9.9
10.768000	36.24	---	60.00	23.76	L1	10.0
24.044000	33.54	---	60.00	26.46	L1	10.6
28.596000	---	19.03	50.00	30.97	L1	10.7

EUT Information

EUT Name	Bluetooth Ambient Light
Model:	PARTYLIGHT BEAM
Test Mode:	operating with Bluetooth connected
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15B
Test By./Review By:	Soloman Wu/ Gary Chen
Tem./Hum./Pressure:	23.3°C/54.8%/101kPa
Remark:	SR1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.166000	51.29	---	65.16	13.87	N	9.8
0.198000	---	30.38	53.69	23.31	N	9.7
0.334000	36.13	---	59.35	23.22	N	9.7
0.592000	30.46	---	56.00	25.54	N	9.8
0.596000	---	17.09	46.00	28.91	N	9.8
0.828000	---	18.68	46.00	27.32	N	9.7
1.088000	32.48	---	56.00	23.52	N	9.6
1.240000	---	18.43	46.00	27.57	N	9.7
1.384000	---	17.62	46.00	28.38	N	9.8
1.384000	33.57	---	56.00	22.43	N	9.8
2.860000	36.42	---	56.00	19.58	N	10.0
2.868000	---	18.99	46.00	27.01	N	10.0