

Prüfbericht-Nr.: Test report no.:	CN26TBZ9 002	Auftrags-Nr.: Order no.:	27234703	Seite 1 von 28 Page 1 of 28	
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2026-05-14		
Auftraggeber: Client:	SHENZHEN FENDA TECHNOLOGY CO.,LTD Fenda Hi-Tech Park, Zhoushi Road, Shiyao Town, Baoan District, Shenzhen City, Guangdong, China				
Prüfgegenstand: Test item:	Medium Portable Bluetooth Speaker				
Bezeichnung / Typ-Nr.: Identification / Type no.:	NS-BTSTM				
Auftrags-Inhalt: Order content:	Test Report				
Prüfgrundlage: Test specification:	CFR Title 47 FCC Part 15, Subpart C, Section 15.247				
Wareneingangsdatum: Date of sample receipt:	2026-05-20	Please refer to Photo Document			
Prüfmuster-Nr.: Test sample no.:	A004278026-001~003				
Prüfzeitraum: Testing period:	2026-05-25 - 2026-06-11				
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:	2026-06-17	Signed by: Jonathan Li		Ausstellungsdatum: Issue date:	2026-06-17
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert	
Sonstiges / Other:	FCC ID: HBOWT2627				
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.: CN26TBZ9 002
Test report no.:

Seite 2 von 28
Page 2 of 28

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 Prüfbedingungen, 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>
2	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. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature <i>As contractually agreed, this document has been signed digitally only. TUV 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, TUV 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. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature</i>
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>

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 20dB BANDWIDTH

RESULT: Pass

5.1.7 CARRIER FREQUENCY SEPARATION

RESULT: Pass

5.1.8 NUMBER OF HOPPING FREQUENCY

RESULT: Pass

5.1.9 TIME OF OCCUPANCY

RESULT: Pass

5.1.10 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.11 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.12 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

Contents

1	GENERAL REMARKS	5
1.1	COMPLEMENTARY MATERIALS	5
2	TEST SITES	6
2.1	TEST FACILITIES	6
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.....	8
2.7	STATUS OF FACILITY USED FOR TESTING.....	8
3	GENERAL PRODUCT INFORMATION	9
3.1	PRODUCT FUNCTION AND INTENDED USE.....	9
3.2	RATINGS AND SYSTEM DETAILS	9
3.3	INDEPENDENT OPERATION MODES	11
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	11
3.5	SUBMITTED DOCUMENTS.....	11
4	TEST SET-UP AND OPERATION MODES	12
4.1	PRINCIPLE OF CONFIGURATION SELECTION	12
4.2	TEST OPERATION AND TEST SOFTWARE.....	12
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	12
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....	12
4.5	TEST SETUP DIAGRAM	13
5	TEST RESULTS	15
5.1	TRANSMITTER REQUIREMENT & TEST SUITES	15
5.1.1	Antenna Requirement	15
5.1.2	Maximum Peak Conducted Output Power.....	16
5.1.3	Conducted Power Spectral Density	18
5.1.4	6dB Bandwidth	19
5.1.5	99% Bandwidth	20
5.1.6	20dB Bandwidth	21
5.1.7	Carrier Frequency Separation.....	22
5.1.8	Number of Hopping Frequency.....	23
5.1.9	Time of Occupancy	24
5.1.10	Conducted Spurious Emissions Measured in 100 kHz Bandwidth.....	25
5.1.11	Radiated Spurious Emission.....	26
5.1.12	Conducted Emission on AC Mains	27
6	PHOTOGRAPHS OF THE TEST SET-UP	28
7	LIST OF TABLES.....	28

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 BR & EDR

Appendix B: Test Results of Bluetooth LE

Appendix C: 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

FCC Accreditation Designation No.: 694916

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend 1)					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until
Wireless Connectivity Tester	R&S	CMW270	102505	2025-09-23	2026-09-22
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2025-09-23	2026-09-22
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	2025-09-23	2026-09-22
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	2025-09-23	2026-09-22
DC power supply	Keysight	E3642A	MY61276100	2025-09-23	2026-09-22
Power Control Unit	Tonscend	JS0806-4ADC	N/A	2025-09-23	2026-09-22
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2025-09-23	2026-09-22
Test Software	Tonscend	JS1120-3	N/A	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	Y LX23JMF	N/A	N/A
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
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	102680	2027-02-03
Artificial Mains Network	R&S	ENV216	102333	2026-07-18
Artificial Mains Network	R&S	ENV216	101445	2027-02-03
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
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

Prüfbericht - Nr.: CN26TBZ9 002
*Test Report No.:*Seite 8 von 28
Page 8 of 28

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B & C 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.

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 a Medium Portable Bluetooth Speaker which supports Bluetooth wireless technology.

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

3.2 Ratings and System Details

Table 3: General Information of EUT

General Information of EUT	Value
Kind of Equipment:	Medium Portable Bluetooth Speaker
Type Designation:	NS-BTSTM
FCC ID:	HBOWT2627
Operating Voltage:	Internal battery operated (3.7Vdc, 2600mAh) or USB-C operated (5Vdc, 2A)
Testing Voltage:	Fully charged battery or AC 120V/60Hz
Technical Specification of Bluetooth (dual mode)	
Operating Frequency:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Channel Number:	BR & EDR mode:79 channels, Low Energy mode:40 channels
Channel Separation:	BR & EDR mode:1MHz, Low Energy mode:2MHz
Data Rate:	BR & EDR mode: 1Mbps, 2Mbps, 3Mbps Low Energy mode: 1Mbps, 2Mbps
Antenna Type:	PCB Antenna
Antenna Gain:	1.83 dBi (Provided by the Client)

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

Table 4: RF Channel and Frequency of Bluetooth BR & EDR

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	20	2422.00	40	2442.00	60	2462.00
1	2403.00	21	2423.00	41	2443.00	61	2463.00
2	2404.00	22	2424.00	42	2444.00	62	2464.00
3	2405.00	23	2425.00	43	2445.00	63	2465.00
4	2406.00	24	2426.00	44	2446.00	64	2466.00
5	2407.00	25	2427.00	45	2447.00	65	2467.00
6	2408.00	26	2428.00	46	2448.00	66	2468.00
7	2409.00	27	2429.00	47	2449.00	67	2469.00
8	2410.00	28	2430.00	48	2450.00	68	2470.00
9	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		

Test frequencies are lowest channel: 2402 MHz, middle channel: 2441 MHz and highest channel: 2480 MHz for Bluetooth BR & EDR

Table 5: 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 (BR & EDR mode)
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, Bluetooth transmitting mode (Bluetooth LE mode)
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- C. On, Transmitting on Hopping channel
- D. On, Normal working + Charging
- E. Off

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 | - ID 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.

According to clause 3.1, all tests were performed on model *NS-BTSTM* in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 6: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	Remark
Laptop	Lenovo	ThinkPad T14	/
Mobile phone	/	/	/
Adapter	MI	MDY-14-EU	Output: DC 5V, 3A

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)

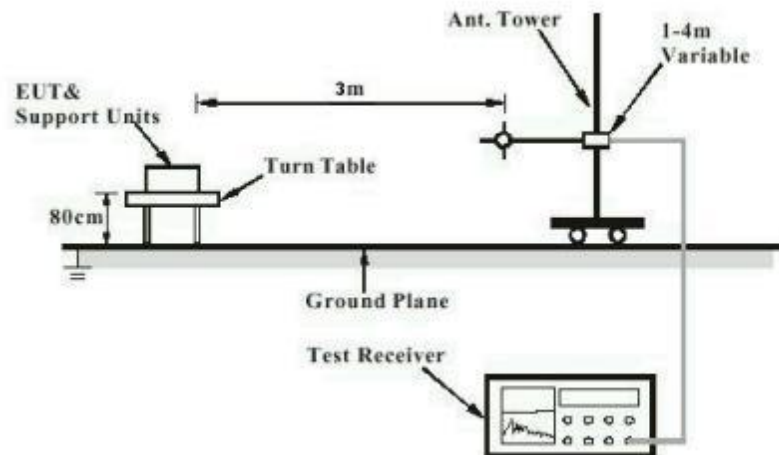


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

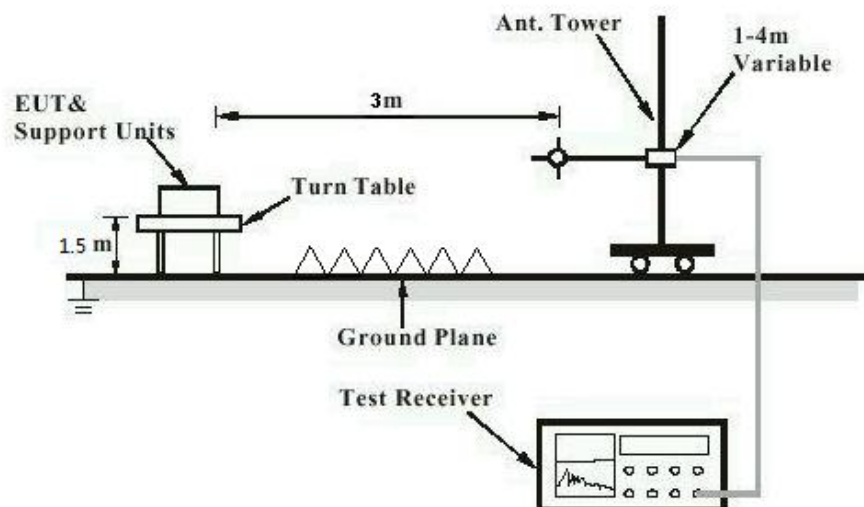


Diagram of Measurement Configuration for Mains Conduction Measurement

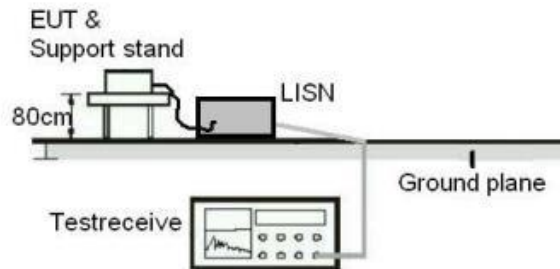
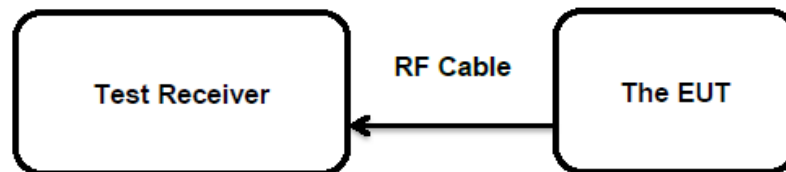


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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

According to the manufacturer declared, the EUT has PCB 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.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 16 von 28
Page 16 of 28

5.1.2 Maximum Peak Conducted Output Power

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(b)(1)&(3)
Basic standard	: ANSI C63.10:2020
Limits	: FHSS < 0.125 Watts, DSSS < 1.0 Watts
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: A, B
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For details refer to following test result.

Table 7: Test Result of Maximum Conducted Output Power, BR & EDR

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
GFSK (BR)	2402.0	8.78	0.008	< 0.125
	2441.0	8.27	0.007	
	2480.0	8.45	0.007	
8DPSK (EDR)	2402.0	8.81	0.008	
	2441.0	8.30	0.007	
	2480.0	8.61	0.007	
Maximum Measured Value		8.81	0.008	

Table 8: 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	8.72	0.007	< 1.0
	2440	8.34	0.007	
	2480	8.43	0.007	
Bluetooth LE (2 Mbps)	2402	8.43	0.007	
	2440	8.04	0.006	
	2480	8.21	0.007	
Max. Measured Value		8.72	0.007	

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G): 1.83dBi

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 18 von 28
Page 18 of 28

5.1.3 Conducted Power Spectral Density

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(e)
Basic standard	: ANSI C63.10:2020
Limits	: < 8 dBm / 3kHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: B
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 19 von 28
Page 19 of 28

5.1.4 6dB Bandwidth

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(a)(2)
Basic standard	: ANSI C63.10:2020
Limits	: > 500 kHz
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: B
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 20 von 28
Page 20 of 28

5.1.5 99% Bandwidth

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(a)
Basic standard	: ANSI C63.10:2020
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: A, B
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A, B.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 21 von 28
Page 21 of 28

5.1.6 20dB Bandwidth

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(a)(1)
Basic standard	: ANSI C63.10:2020
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 22 von 28
Page 22 of 28

5.1.7 Carrier Frequency Separation

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(a)(1)
Basic standard	: ANSI C63.10:2020
Limits	: $\geq 25\text{kHz}$ or 2/3 of 20dB bandwidth, whichever is greater
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: C
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 23 von 28
Page 23 of 28

5.1.8 Number of Hopping Frequency

RESULT:

Pass

Test Specification

Test standard	: FCC part 15.247(a)(1)(iii)
Basic standard	: ANSI C63.10:2020
Limits	: ≥ 15 non-overlapping channels
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: C
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:

Seite 24 von 28
Page 24 of 28

5.1.9 Time of Occupancy

RESULT:

Pass

Test Specification

Test standard	: FCC part 15.247(a)(1)(iii)
Basic standard	: ANSI C63.10:2020
Limits	: < 0.4s
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: C
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:Seite 25 von 28
Page 25 of 28

5.1.10 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(d)
Basic standard	: ANSI C63.10:2020
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	: 2026-06-10 to 2026-06-11
Input voltage	: Fully charged battery
Operation mode	: A, B, C
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 45 %
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, B.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:Seite 26 von 28
Page 26 of 28

5.1.11 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(d) & FCC Part 15.205
Basic standard	: ANSI C63.10:2020
Limits	: Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2026-05-31 to 2026-06-03
Input voltage	: Fully charged battery
Operation mode	: A, B
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, B.

Prüfbericht - Nr.: CN26TBZ9 002
Test Report No.:Seite 27 von 28
Page 27 of 28**5.1.12 Conducted Emission on AC Mains****RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.207(a)
Basic standard	: ANSI C63.10:2020
Frequency range	: 0.15 – 30MHz
Classification	: Class B
Limits	: FCC Part 15.207(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-05-25
Input voltage	: AC 120V, 60Hz
Operation mode	: D
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 C.

7 List of Tables

Table 1: List of Test and Measurement Equipment.....	6
Table 2: Measurement Uncertainty.....	7
Table 3: General Information of EUT	9
Table 4: RF Channel and Frequency of Bluetooth BR & EDR	10
Table 5: RF Channel and Frequency of Bluetooth LE	10
Table 6: List of Accessories and Auxiliary Equipment.....	12
Table 7: Test Result of Maximum Conducted Output Power, BR & EDR	17
Table 8: Test Result of Maximum Conducted Output Power, Bluetooth LE	17

Appendix A: Test Results of Bluetooth BR & EDR

APPENDIX A: TEST RESULTS OF BLUETOOTH BR & EDR.....	1
APPENDIX A.1: TEST RESULTS OF 20DB BANDWIDTH	2
Test Result	2
Test Graphs	3
APPENDIX A.2: TEST RESULTS OF 99% BANDWIDTH	6
Test Result	6
Test Graphs	7
APPENDIX A.3: TEST RESULTS OF CARRIER FREQUENCY SEPARATION	10
Test Result	10
Test Graphs	11
APPENDIX A.4: TEST RESULTS OF TIME OF OCCUPANCY	12
Test Result	12
Test Graphs	13
APPENDIX A.5: TEST RESULTS OF NUMBER OF HOPPING FREQUENCY	18
Test Result	18
Test Graphs	19
APPENDIX A.6: TEST RESULTS OF BAND EDGE MEASUREMENTS	20
Test Result	20
Test Graphs	21
APPENDIX A.7: TEST RESULTS OF CONDUCTED SPURIOUS EMISSION	24
Test Result	24
Test Graphs	25
APPENDIX A.8: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	32
30MHz - 1GHz	32
1GHz - 18GHz	34
APPENDIX A.9: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	46
APPENDIX A.10: TEST RESULTS OF CONDUCTED EMISSION ON AC MAINS	50

Appendix A.1: Test Results of 20dB Bandwidth

Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.538	2402.486	---	PASS
		2441	0.948	2440.538	2441.486	---	PASS
		2480	0.891	2479.538	2480.429	---	PASS
3DH5	Ant1	2402	1.242	2401.367	2402.609	---	PASS
		2441	1.239	2440.370	2441.609	---	PASS
		2480	1.224	2479.373	2480.597	---	PASS

[illegible]



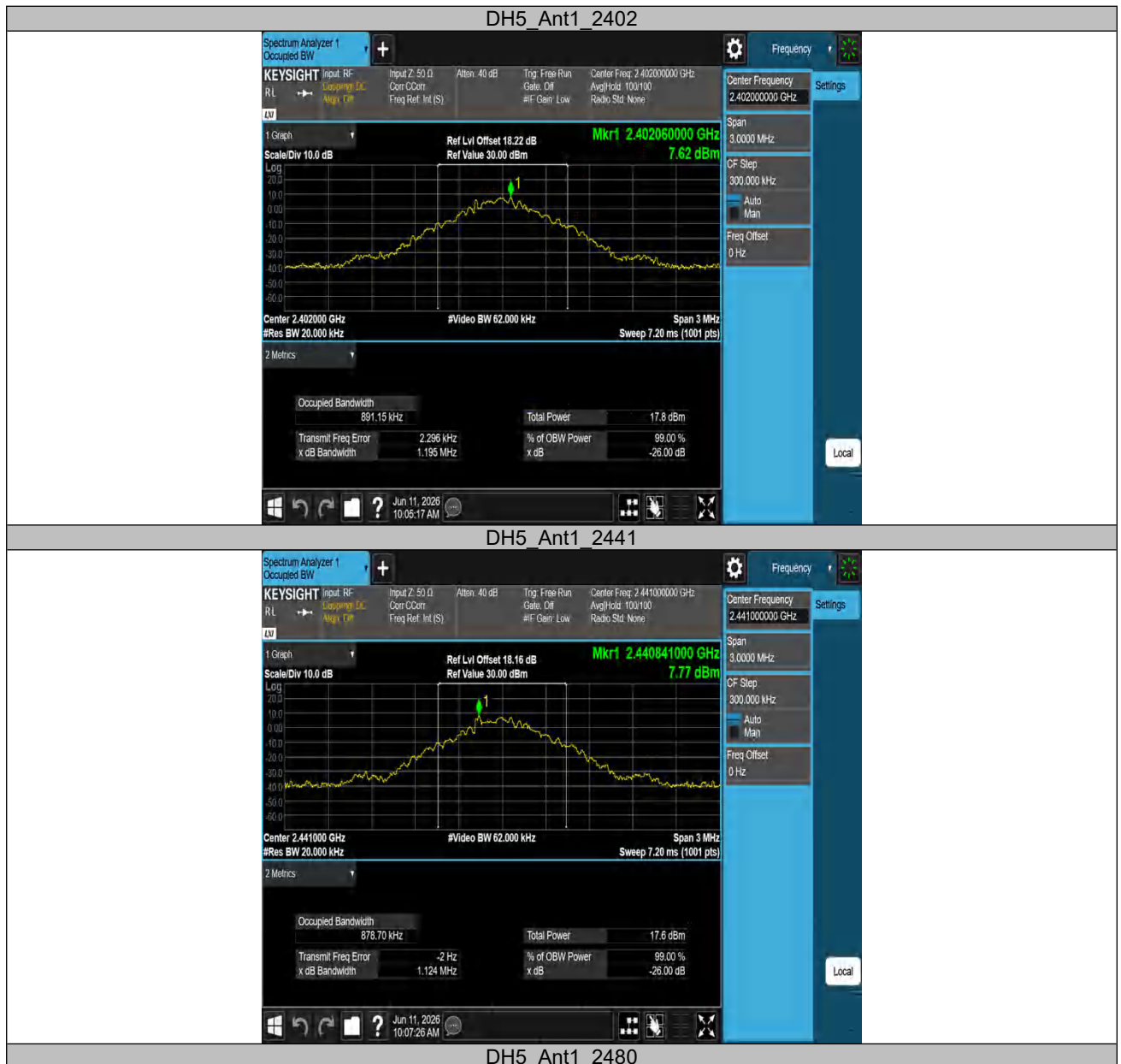


Appendix A.2: Test Results of 99% Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.89115	2401.5567	2402.4479	---	PASS
		2441	0.87870	2440.5607	2441.4394	---	PASS
		2480	0.88157	2479.5592	2480.4408	---	PASS
3DH5	Ant1	2402	1.1602	2401.4180	2402.5782	---	PASS
		2441	1.1596	2440.4193	2441.5789	---	PASS
		2480	1.1679	2479.4130	2480.5809	---	PASS

Test Graphs





3DH5 Ant1_2402



3DH5 Ant1_2441



3DH5 Ant1_2480



Appendix A.3: Test Results of Carrier Frequency Separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.996	≥ 0.948	PASS
3DH5	Ant1	Hop	1.134	≥ 0.828	PASS

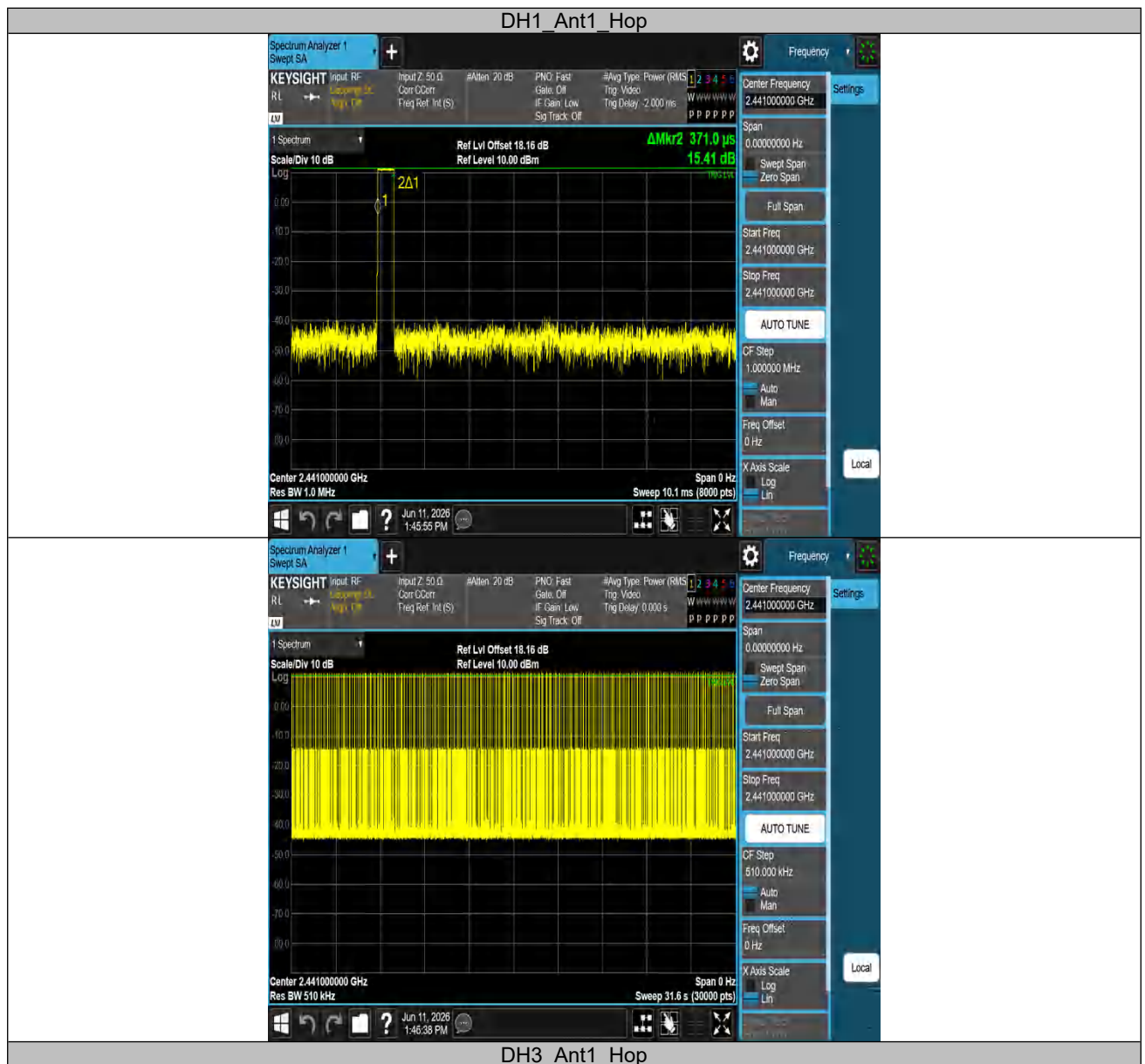
Test Graphs



Appendix A.4: Test Results of Time of Occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.371	319	0.118	≤0.4	PASS
DH3	Ant1	Hop	1.620	159	0.258	≤0.4	PASS
DH5	Ant1	Hop	2.868	107	0.307	≤0.4	PASS
3DH1	Ant1	Hop	0.379	319	0.121	≤0.4	PASS
3DH3	Ant1	Hop	1.629	159	0.259	≤0.4	PASS
3DH5	Ant1	Hop	2.879	107	0.308	≤0.4	PASS





DH5_Ant1_Hop

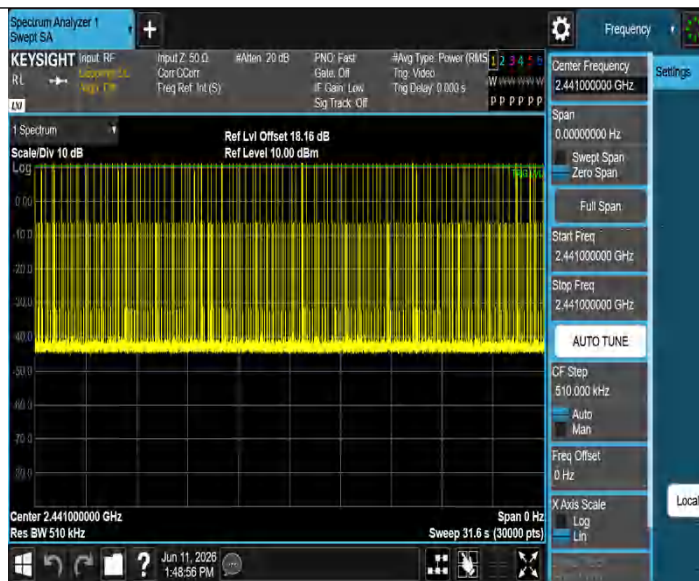






3DH5 Ant1 Hop





Appendix A.5: Test Results of Number of Hopping Frequency

Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



Appendix A.6: Test Results of Band Edge Measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	11.16	-41.34	≤-8.84	PASS
		High	2480	10.86	-40.73	≤-9.14	PASS
3DH5	Ant1	Low	2402	11.14	-38.55	≤-8.86	PASS
		High	2480	10.85	-40.50	≤-9.15	PASS
DH5	Ant1	Hopping	2402	11.27	-42.09	≤-8.73	PASS
		Hopping	2480	10.37	-41.46	≤-9.64	PASS
3DH5	Ant1	Hopping	2402	5.02	-41.90	≤-14.98	PASS
		Hopping	2480	4.84	-40.85	≤-15.16	PASS

Test Graphs





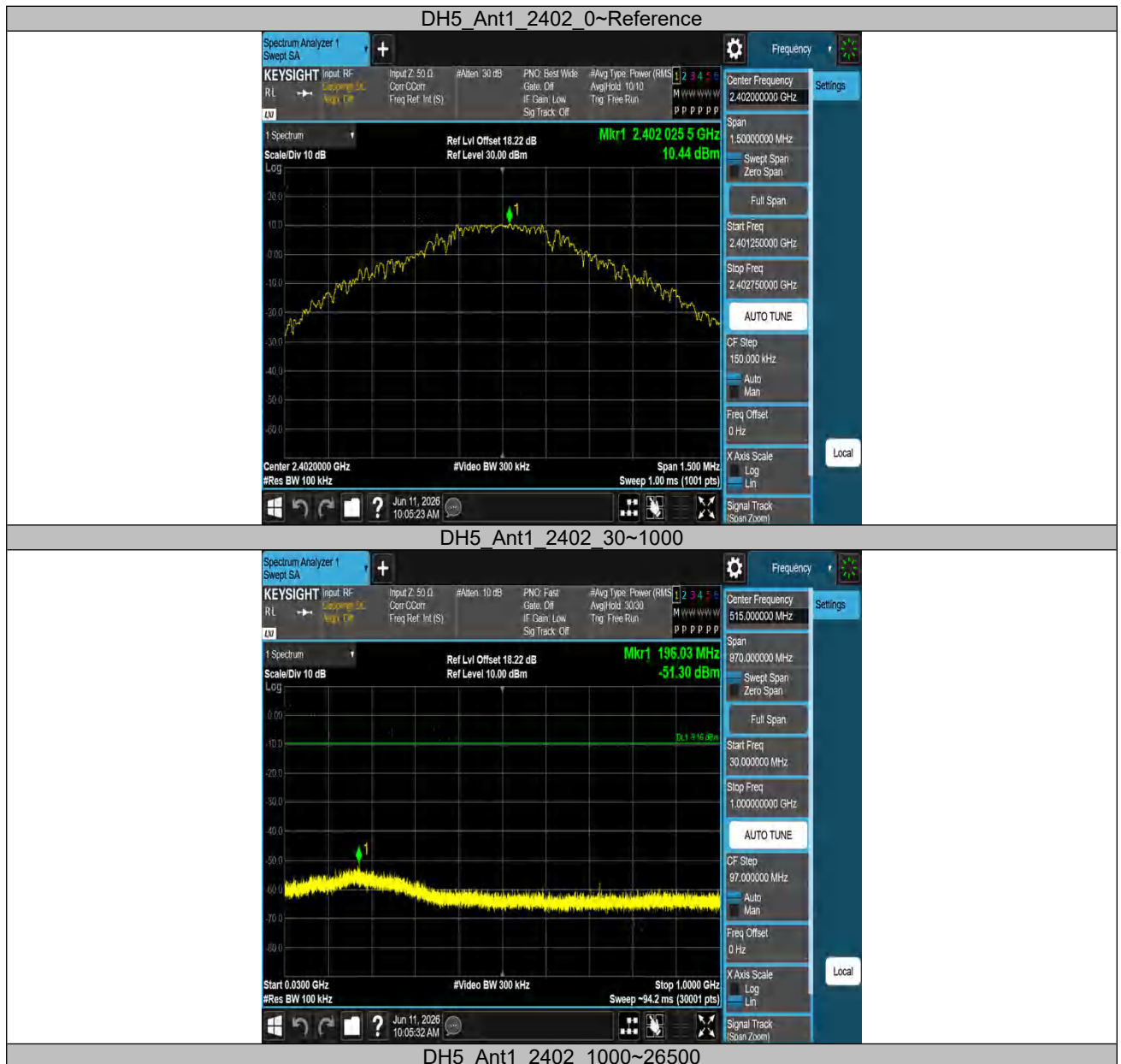


Appendix A.7: Test Results of Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	10.44	10.44	---	PASS
			30~1000	10.44	-51.3	≤-9.56	PASS
			1000~26500	10.44	-53.98	≤-9.56	PASS
		2441	Reference	10.69	10.69	---	PASS
			30~1000	10.69	-51.92	≤-9.31	PASS
			1000~26500	10.69	-45.56	≤-9.31	PASS
		2480	Reference	10.24	10.24	---	PASS
			30~1000	10.24	-51.96	≤-9.76	PASS
			1000~26500	10.24	-54.34	≤-9.76	PASS
3DH5	Ant1	2402	Reference	6.07	6.07	---	PASS
			30~1000	6.07	-51	≤-13.93	PASS
			1000~26500	6.07	-54.25	≤-13.93	PASS
		2441	Reference	8.79	8.79	---	PASS
			30~1000	8.79	-52.32	≤-11.21	PASS
			1000~26500	8.79	-54.14	≤-11.21	PASS
		2480	Reference	10.82	10.82	---	PASS
			30~1000	10.82	-51.57	≤-9.18	PASS
			1000~26500	10.82	-53.66	≤-9.18	PASS

Test Graphs

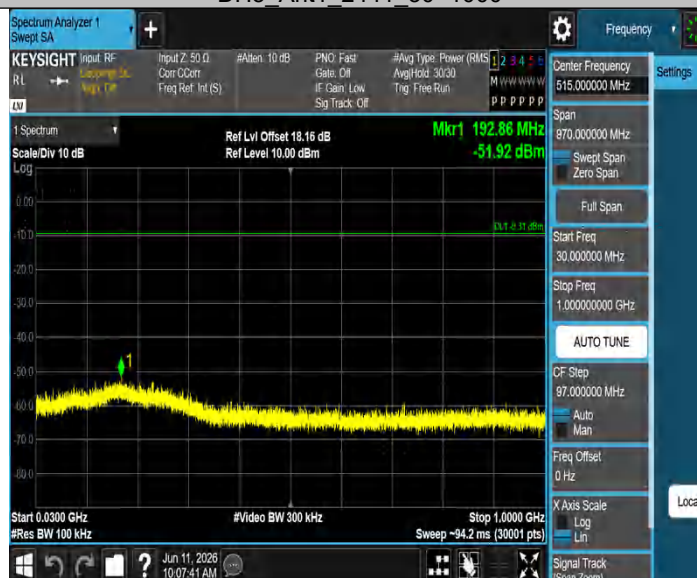




DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

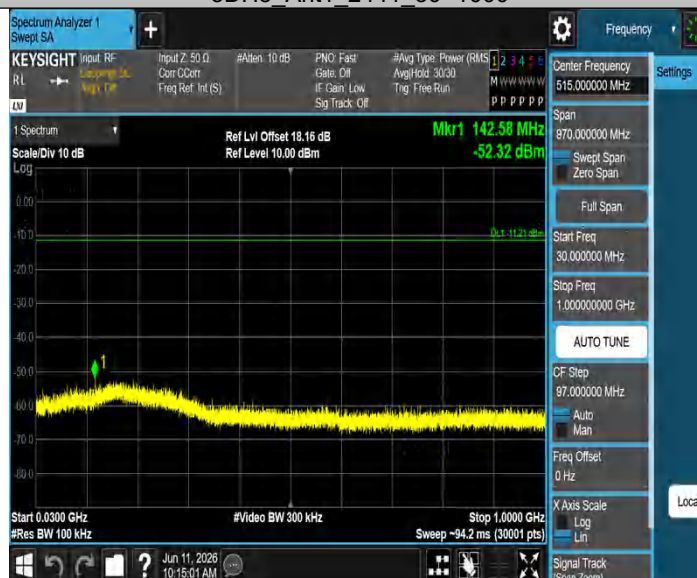




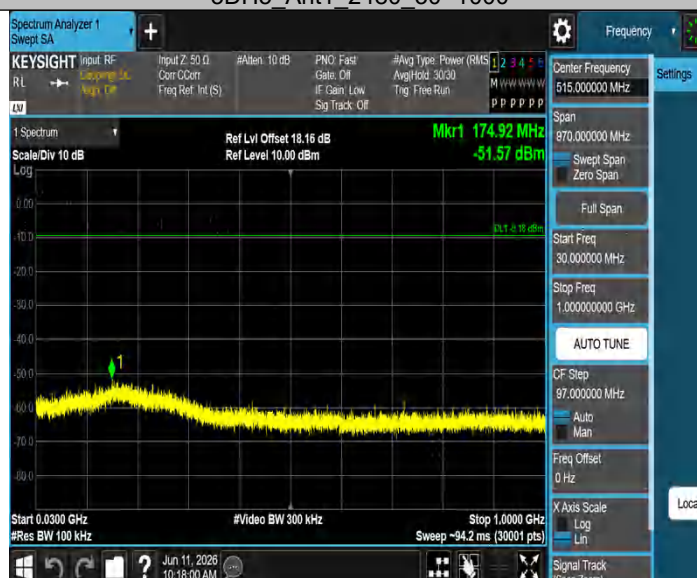
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500





Appendix A.8: Test Results of Radiated Spurious Emissions

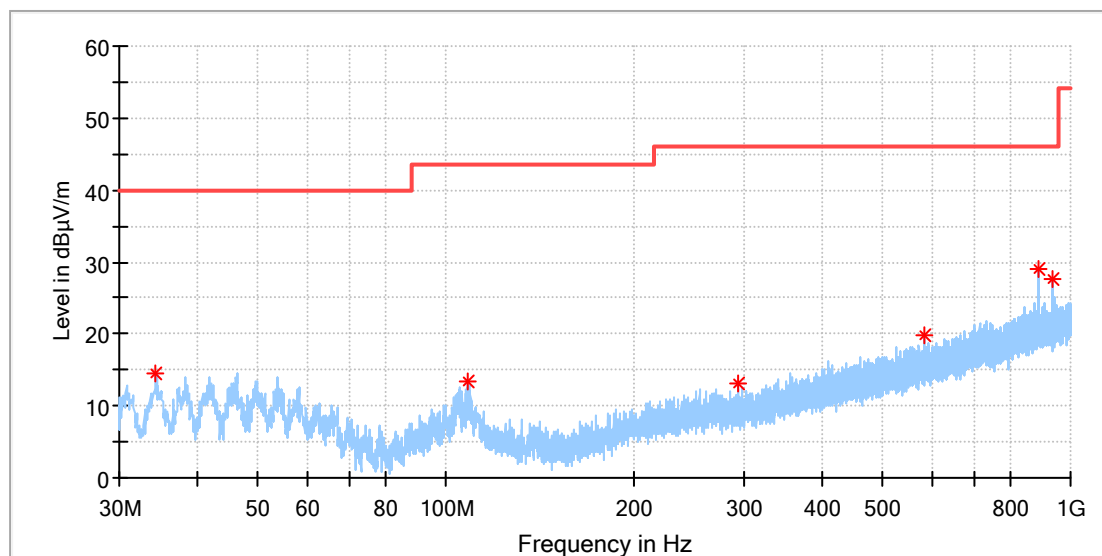
Note:

- 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:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_Mid channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

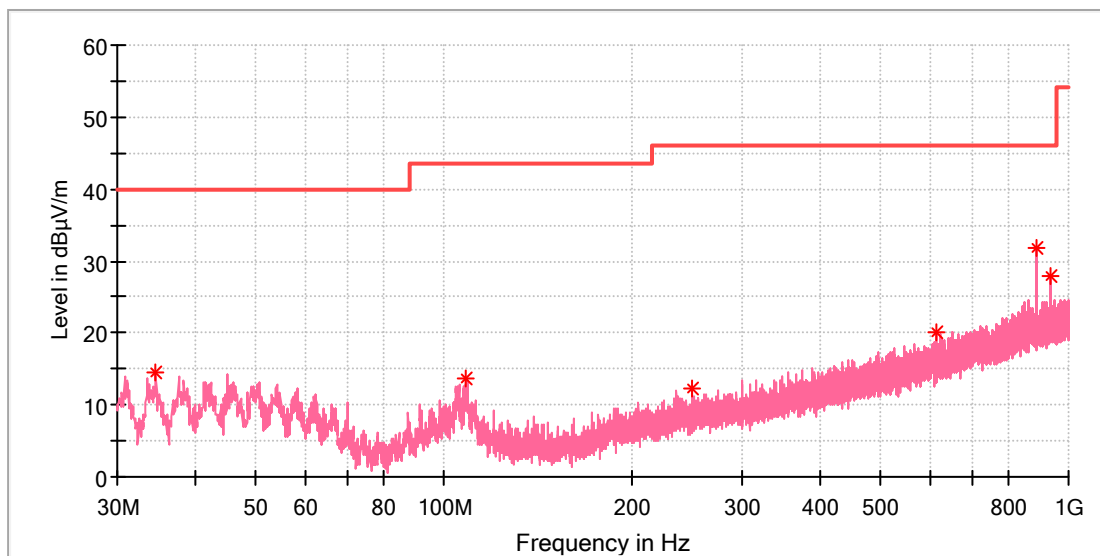
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.365000	14.52	40.00	25.48	100.0	H	233.0	-22.2
108.085000	13.35	43.50	30.15	100.0	H	0.0	-19.1
293.301111	13.03	46.00	32.97	100.0	H	301.0	-16.4
582.361111	19.70	46.00	26.30	100.0	H	118.0	-10.1
891.036667	28.93	46.00	17.07	100.0	H	322.0	-4.9
936.950000	27.76	46.00	18.24	100.0	H	89.0	-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:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_Mid channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
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)
34.580556	14.56	40.00	25.44	100.0	V	314.0	-22.1
108.785556	13.59	43.50	29.91	100.0	V	181.0	-19.1
250.028333	12.19	46.00	33.81	100.0	V	246.0	-17.4
612.916111	19.98	46.00	26.02	100.0	V	314.0	-9.4
890.982778	31.92	46.00	14.08	100.0	V	0.0	-4.9
938.405000	27.92	46.00	18.08	100.0	V	355.0	-4.4

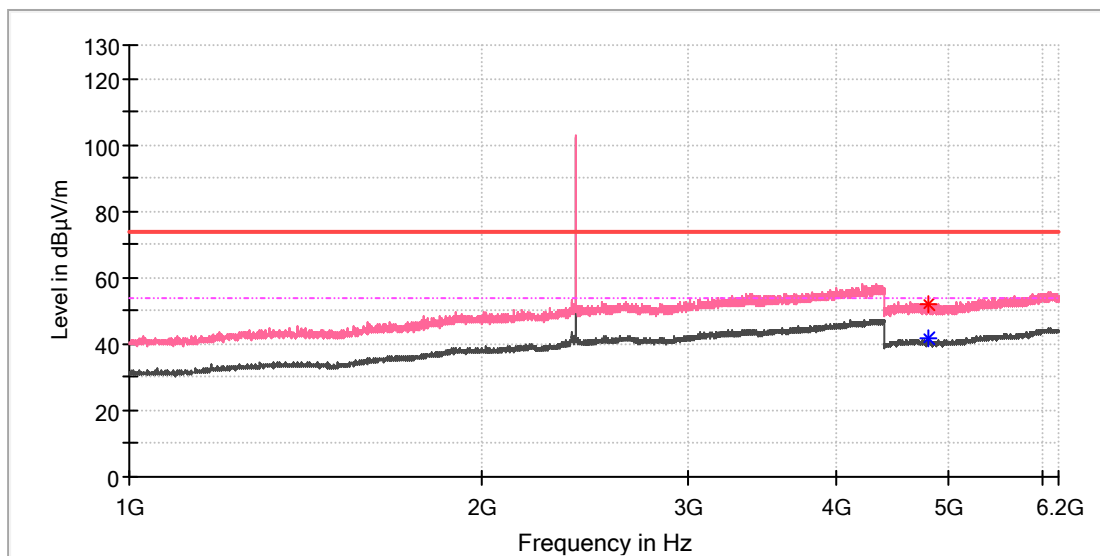
Final_Result

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)
---	---	---	---	---	---		---	---

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_Low channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

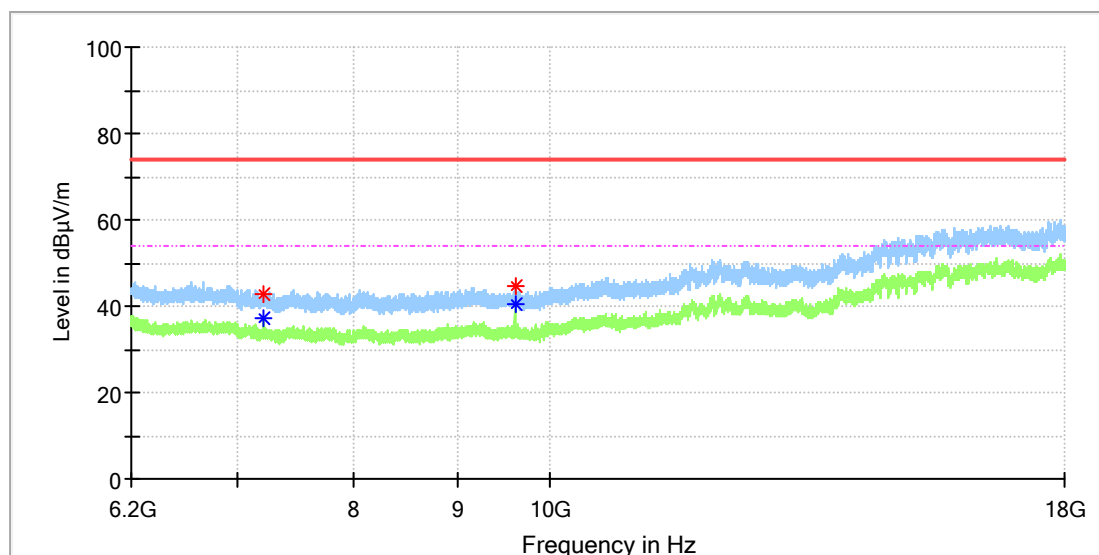
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000000	---	41.99	54.00	12.01	150.0	V	137.0	13.3
4807.500000	52.02	---	74.00	21.98	150.0	V	197.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.750 MHz	93.750 MHz	93.750 MHz	93.750 MHz	93.750 MHz	93.750 MHz		93.750 MHz	93.750 MHz

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_Low channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
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)
7205.950000	42.82	---	74.00	31.18	150.0	H	0.0	8.8
7205.950000	---	37.36	54.00	16.64	150.0	H	0.0	8.8
9607.741667	44.58	---	74.00	29.42	150.0	H	354.0	10.4
9607.741667	---	40.32	54.00	13.68	150.0	H	354.0	10.4

Final Result

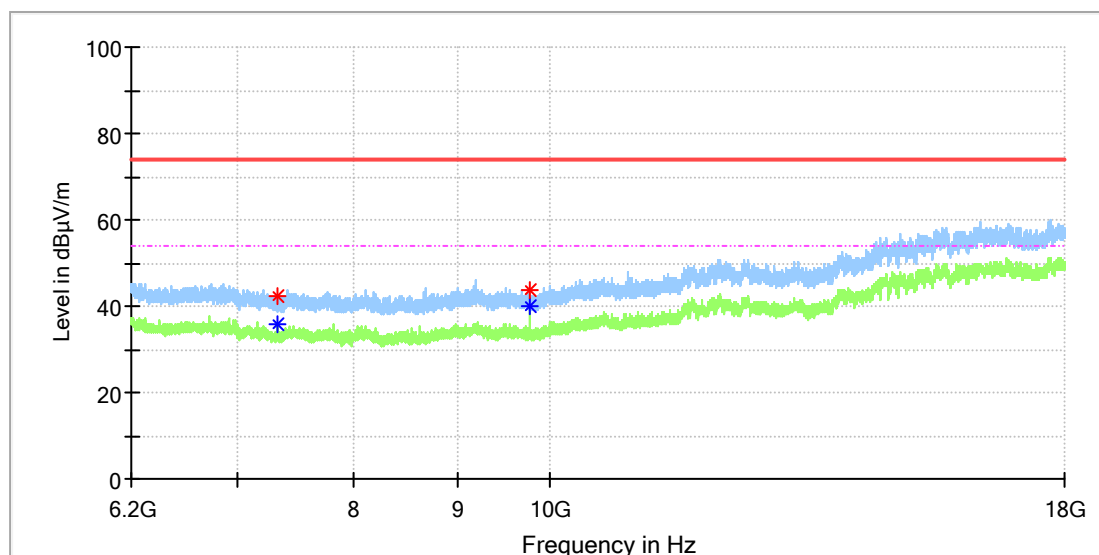
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.7	122.0	118.0	120.0	2.0	100	V	135	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	93.750000	93.750000	93.750000	93.750000	93.750000		93.750000	93.750000

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_Mid channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

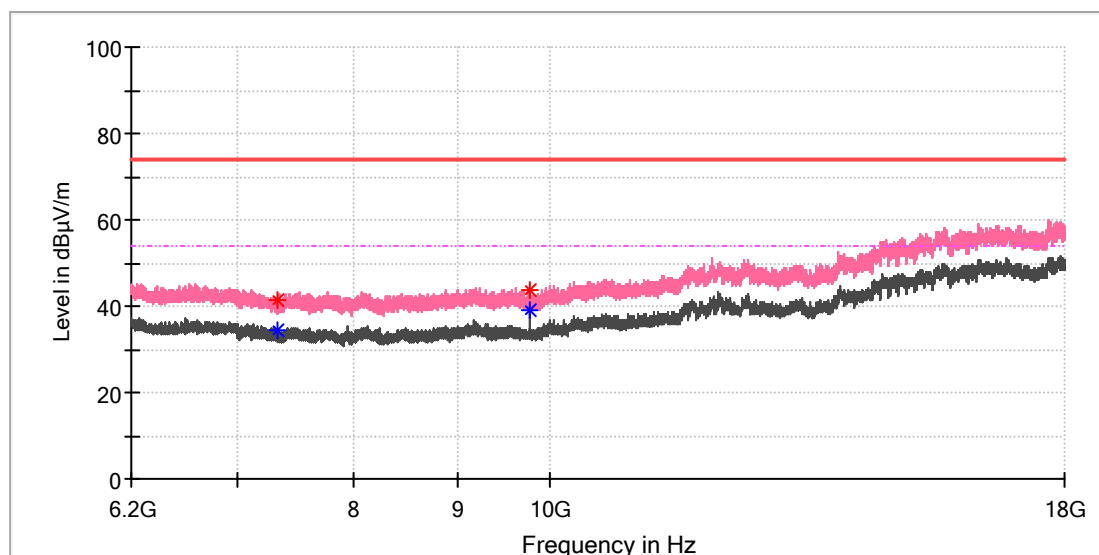
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.966667	---	36.00	54.00	18.00	150.0	H	301.0	8.2
7323.950000	42.16	---	74.00	31.84	150.0	H	65.0	8.2
9763.600000	43.94	---	74.00	30.06	150.0	H	356.0	10.4
9763.600000	---	39.85	54.00	14.15	150.0	H	356.0	10.4

Final Result

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

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_Mid channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

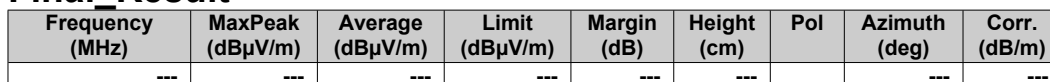
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.475000	---	34.38	54.00	19.62	150.0	V	78.0	8.2
7330.833333	41.36	---	74.00	32.65	150.0	V	57.0	8.1
9764.091667	---	38.98	54.00	15.02	150.0	V	25.0	10.4
9764.583333	43.79	---	74.00	30.21	150.0	V	136.0	10.4

Final Result

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	118.0	118.0	118.0	0.0	100.0	0.0	0.0	0.0

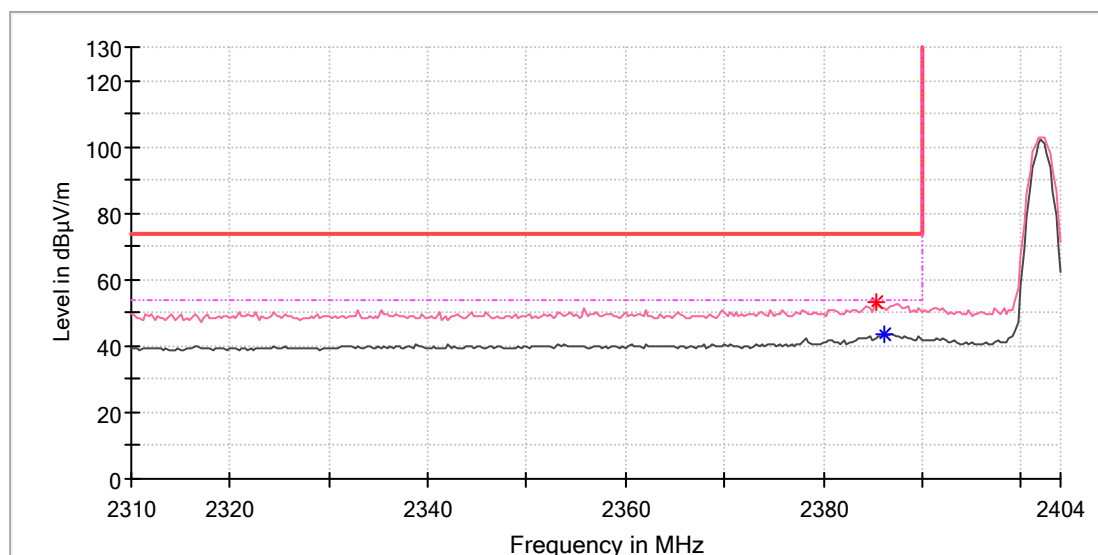
EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_High channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



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

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_Low channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

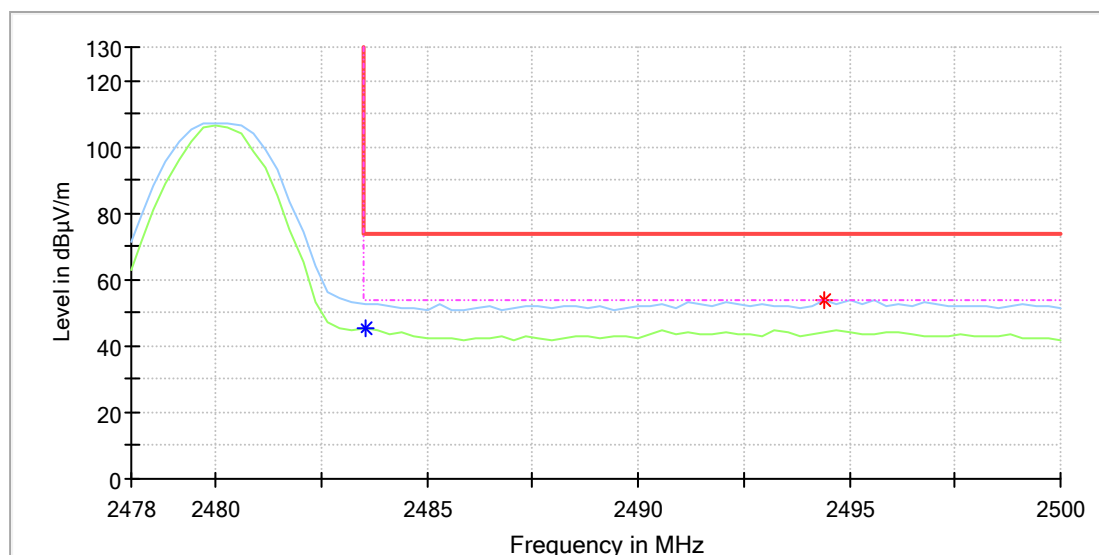
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2385.294118	53.00	---	74.00	21.00	150.0	V	151.0	8.5
2386.176471	---	43.70	54.00	10.30	150.0	V	56.0	8.5

Final Result

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	118.5	120.0	1.5	100	V	135	0.0

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BR DH5_High channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

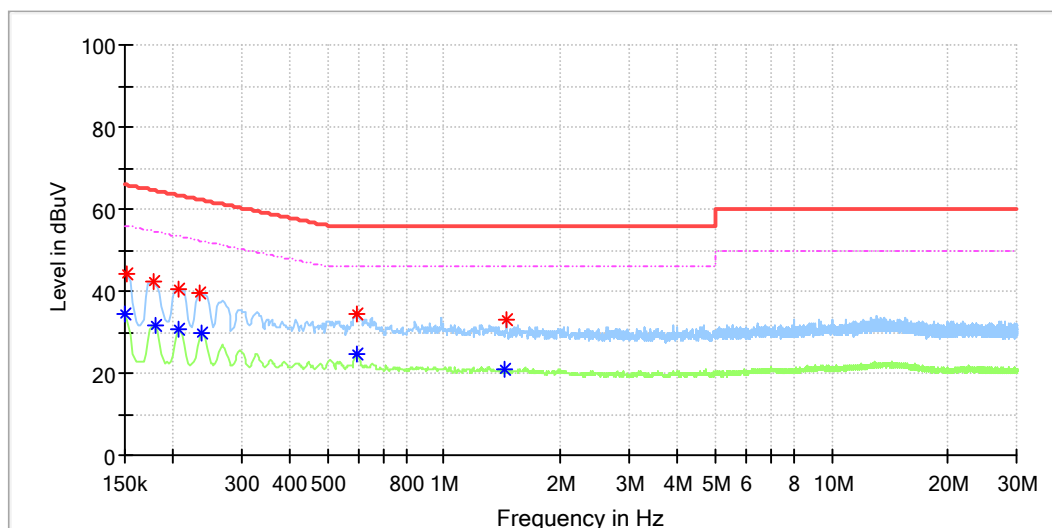
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.529412	---	45.22	54.00	8.78	150.0	H	163.0	9.0
2494.411765	54.03	---	74.00	19.97	150.0	H	148.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.750 MHz	93.750 dBμV/m	93.750 dBμV/m	93.750 dBμV/m	93.750 dB	93.750 cm		93.750 deg	93.750 dB/m

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Order Number:	P02424508-27234703
Model:	NS-BTSTM
Test Mode:	Normal Working+ charging
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)
0.150	---	34.5	56.00	21.50	N	9.7
0.152	44.1	---	65.86	21.75	N	9.7
0.177	42.3	---	64.61	22.31	N	9.9
0.180	---	31.6	54.49	22.84	N	9.9
0.207	40.6	---	63.32	22.74	N	9.9
0.207	---	30.8	53.32	22.51	N	9.9
0.235	39.6	---	62.29	22.65	N	9.9
0.237	---	29.8	52.20	22.38	N	9.9
0.598	---	24.8	46.00	21.18	N	9.9
0.598	34.2	---	56.00	21.80	N	9.9
1.431	---	21.0	46.00	25.05	N	9.9
1.448	33.1	---	56.00	22.86	N	9.9

Final Result

[illegible]

Appendix B: Test Results of Bluetooth LE

APPENDIX B: TEST RESULTS OF BLUETOOTH LE	1
APPENDIX B.1: TEST RESULTS OF 6DB BANDWIDTH	2
Test Result	2
Test Graphs	3
APPENDIX B.2: TEST RESULTS OF 99% BANDWIDTH	6
Test Result	6
Test Graphs	7
APPENDIX B.3: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	10
Test Result	10
Test Graphs	11
APPENDIX B.4: TEST RESULTS OF BAND EDGE MEASUREMENTS	14
Test Result	14
Test Graphs	15
APPENDIX B.5: TEST RESULTS OF CONDUCTED SPURIOUS EMISSION	17
Test Result	17
Test Graphs	18
APPENDIX B.6: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	25
30MHz - 1GHz	25
1GHz - 18GHz	27
APPENDIX B.7: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS.....	39

Appendix B.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	0.728	2401.644	2402.372	0.5	PASS
		2440	0.676	2439.664	2440.340	0.5	PASS
		2480	0.680	2479.644	2480.324	0.5	PASS
BLE_2M	Ant1	2402	1.192	2401.356	2402.548	0.5	PASS
		2440	1.180	2439.360	2440.540	0.5	PASS
		2480	1.140	2479.380	2480.520	0.5	PASS

Test Graphs





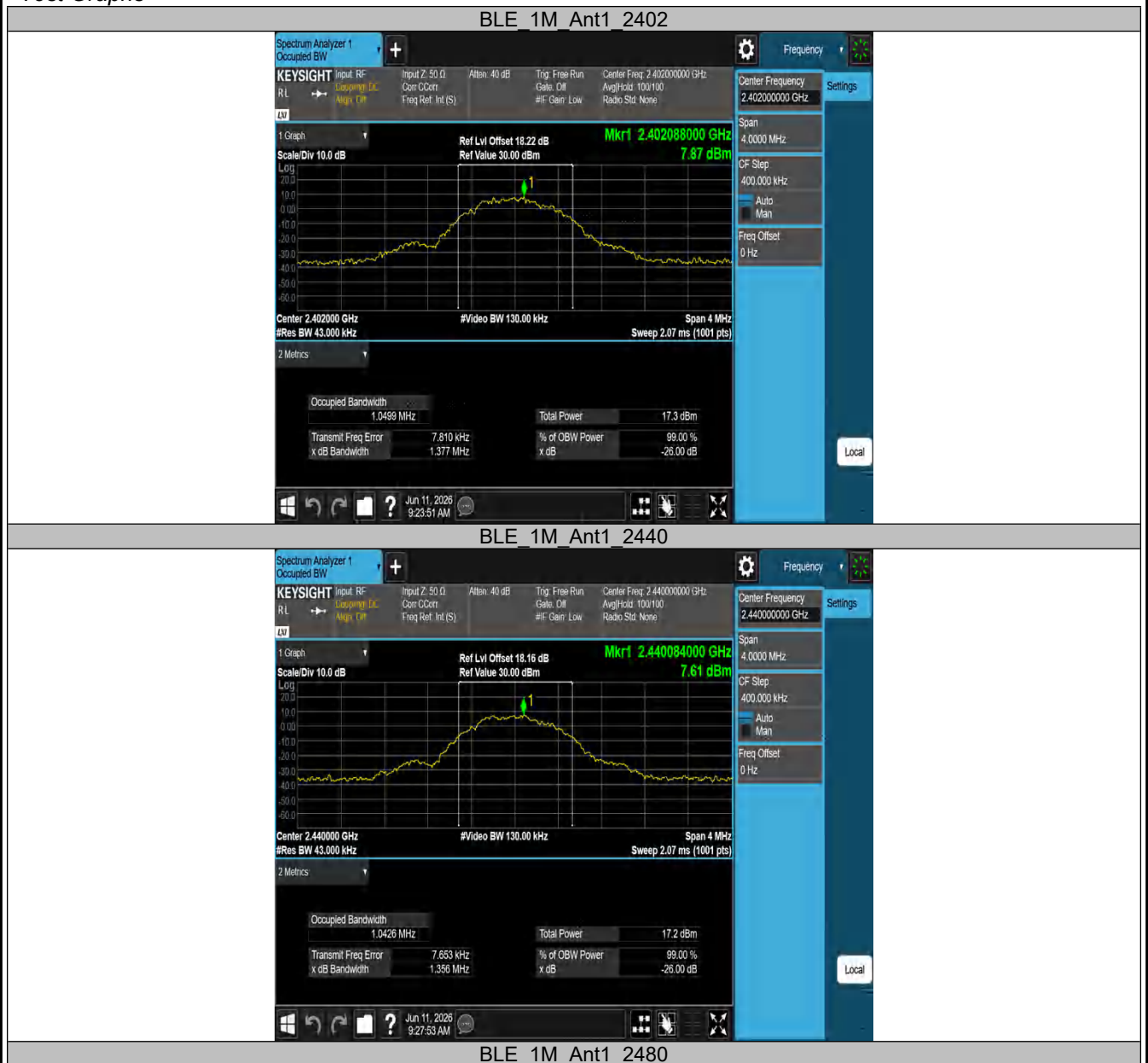


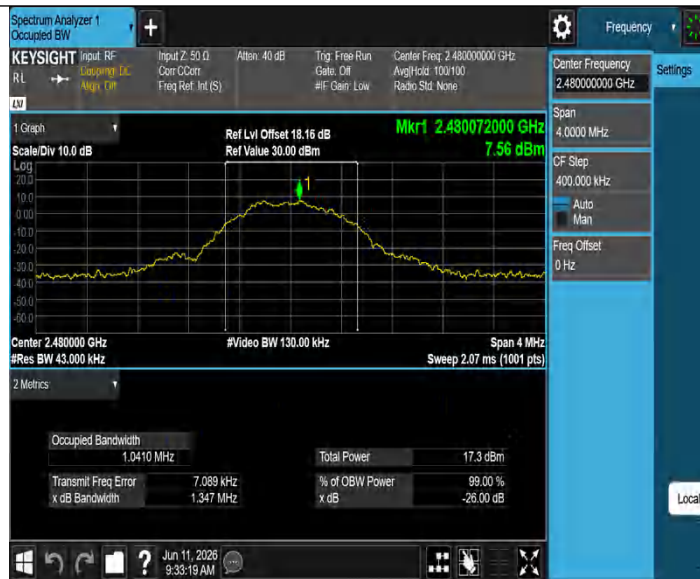
Appendix B.2: Test Results of 99% Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0499	2401.4829	2402.5328	---	PASS
		2440	1.0426	2439.4864	2440.5290	---	PASS
		2480	1.0410	2479.4866	2480.5276	---	PASS
BLE_2M	Ant1	2402	2.0330	2401.0019	2403.0349	---	PASS
		2440	2.0307	2439.0017	2441.0324	---	PASS
		2480	2.0300	2479.0063	2481.0363	---	PASS

Test Graphs





BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



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

Test Result

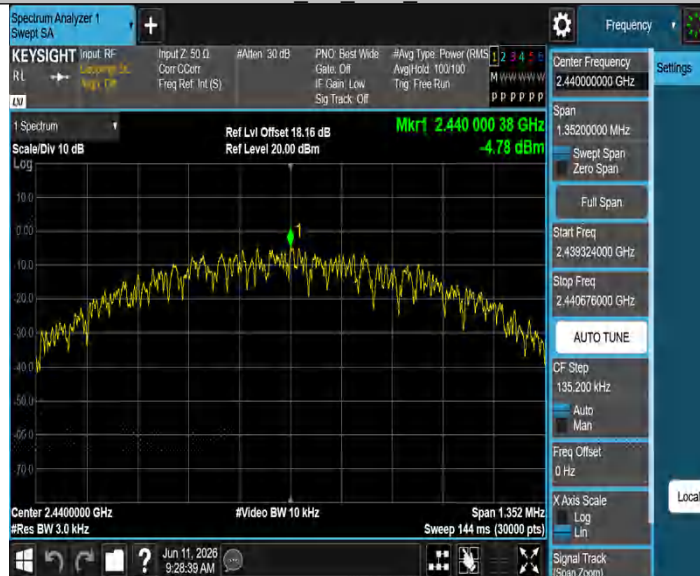
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-4.43	≤8.00	PASS
		2440	-4.78	≤8.00	PASS
		2480	-4.64	≤8.00	PASS
BLE_2M	Ant1	2402	-7.54	≤8.00	PASS
		2440	-7.85	≤8.00	PASS
		2480	-7.79	≤8.00	PASS

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





Appendix B.4: Test Results of Band Edge Measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	10.56	-41.65	≤-9.44	PASS
		High	2480	10.28	-40.58	≤-9.72	PASS
BLE_2M	Ant1	Low	2402	9.33	-28.02	≤-10.67	PASS
		High	2480	9.12	-41.89	≤-10.88	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE 2M Ant1 High 2480

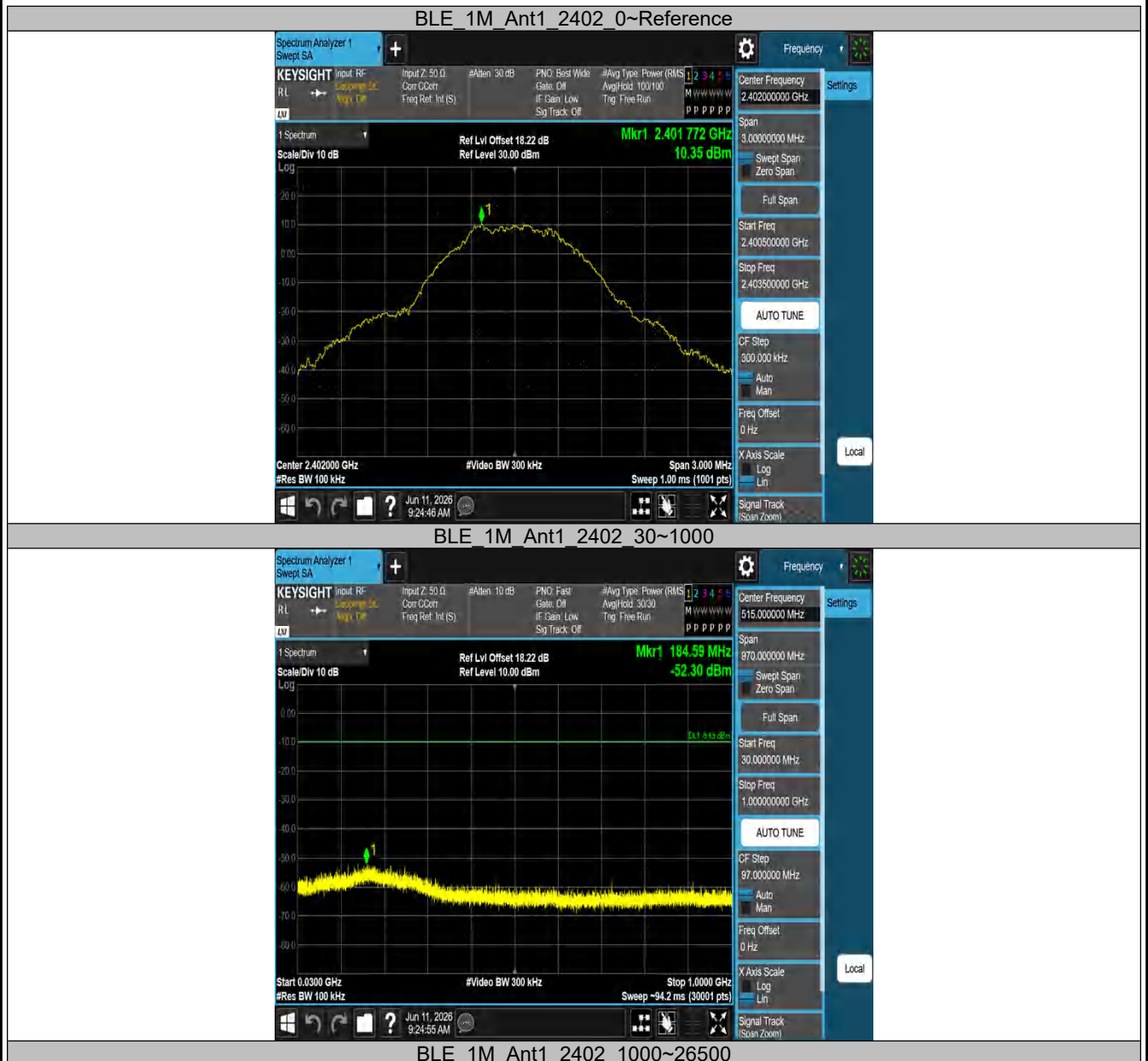


Appendix B.5: Test Results of Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	10.35	10.35	---	PASS
			30~1000	10.35	-52.3	≤-9.65	PASS
			1000~26500	10.35	-53.51	≤-9.65	PASS
		2440	Reference	9.81	9.81	---	PASS
			30~1000	9.81	-51.89	≤-10.19	PASS
			1000~26500	9.81	-54.49	≤-10.19	PASS
		2480	Reference	10.11	10.11	---	PASS
			30~1000	10.11	-52.28	≤-9.89	PASS
			1000~26500	10.11	-54.47	≤-9.89	PASS
BLE_2M	Ant1	2402	Reference	9.38	9.38	---	PASS
			30~1000	9.38	-50.07	≤-10.62	PASS
			1000~26500	9.38	-53.71	≤-10.62	PASS
		2440	Reference	9.00	9.00	---	PASS
			30~1000	9.00	-50.04	≤-11	PASS
			1000~26500	9.00	-54.25	≤-11	PASS
		2480	Reference	9.12	9.12	---	PASS
			30~1000	9.12	-52.98	≤-10.88	PASS
			1000~26500	9.12	-54.6	≤-10.88	PASS

Test Graphs







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



BLE 2M Ant1 2480 30~1000



BLE 2M Ant1 2480 1000~26500



Appendix B.6: Test Results of Radiated Spurious Emissions

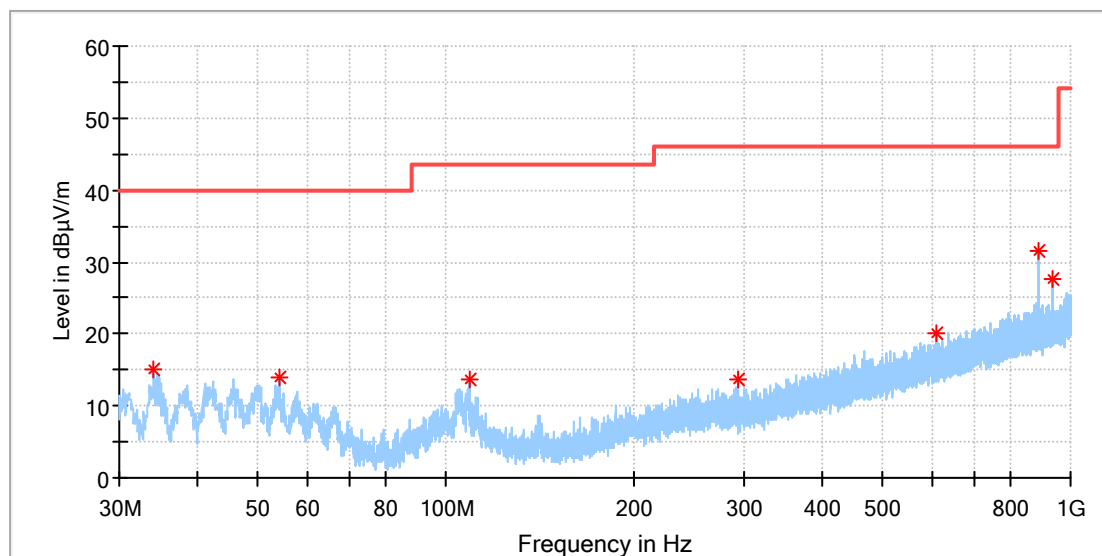
Note:

- 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:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

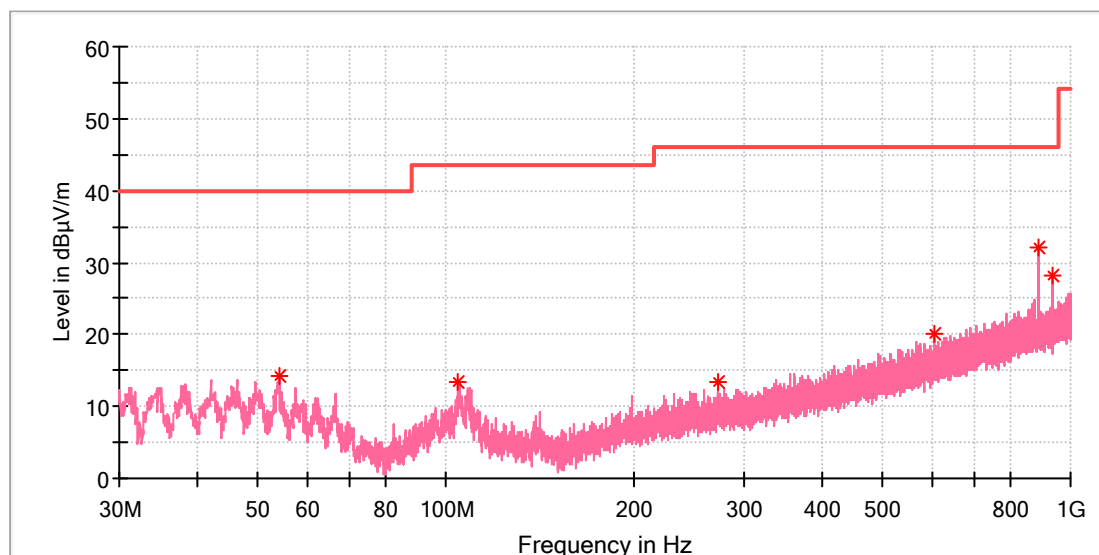
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.095556	15.18	40.00	24.82	100.0	H	260.0	-22.3
54.250000	13.92	40.00	26.08	100.0	H	151.0	-18.5
108.839444	13.59	43.50	29.91	100.0	H	240.0	-19.1
293.301111	13.57	46.00	32.43	100.0	H	217.0	-16.4
609.251667	20.01	46.00	25.99	100.0	H	0.0	-9.5
890.982778	31.51	46.00	14.49	100.0	H	115.0	-4.9
938.458889	27.66	46.00	18.34	100.0	H	103.0	-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: Medium Portable Bluetooth Speaker
Model: NS-BTSTM
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 27234703/A004278026-003
Test Voltage: Battery
Remark: Temp 23.5°C Humi:54%
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)
54.142222	14.23	40.00	25.77	100.0	V	326.0	-18.5
104.797778	13.33	43.50	30.17	100.0	V	113.0	-18.9
271.799444	13.31	46.00	32.69	100.0	V	0.0	-16.9
603.701111	20.11	46.00	25.89	100.0	V	305.0	-9.6
890.982778	31.97	46.00	14.03	100.0	V	136.0	-4.9
938.405000	28.15	46.00	17.85	100.0	V	102.0	-4.4

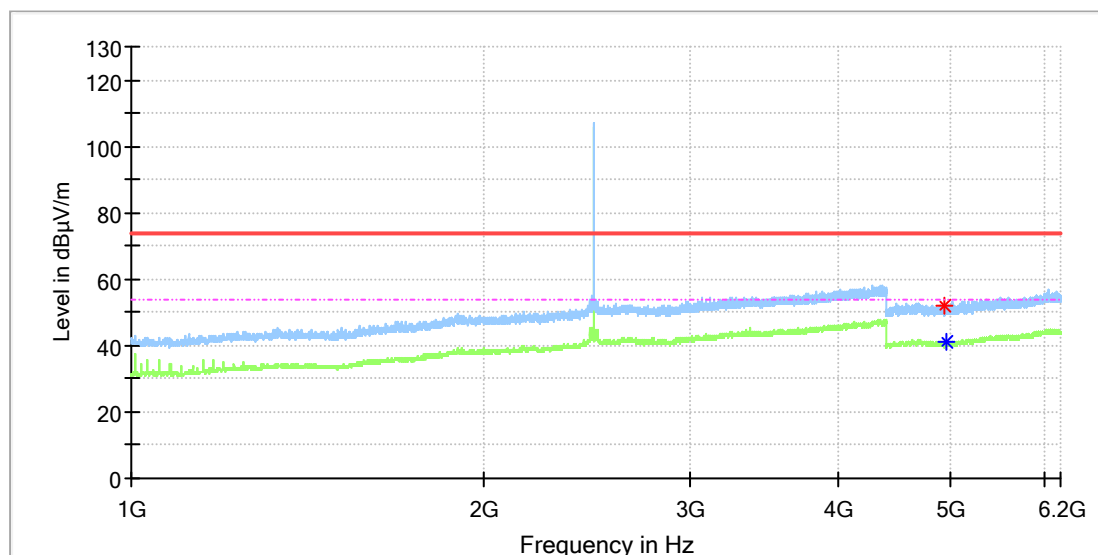
Final_Result

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)
---	---	---	---	---	---		---	---

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BLE 1M_High channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
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)
4944.000000	52.16	---	74.00	21.84	150.0	H	197.0	13.3
4951.500000	---	41.30	54.00	12.70	150.0	H	190.0	13.3

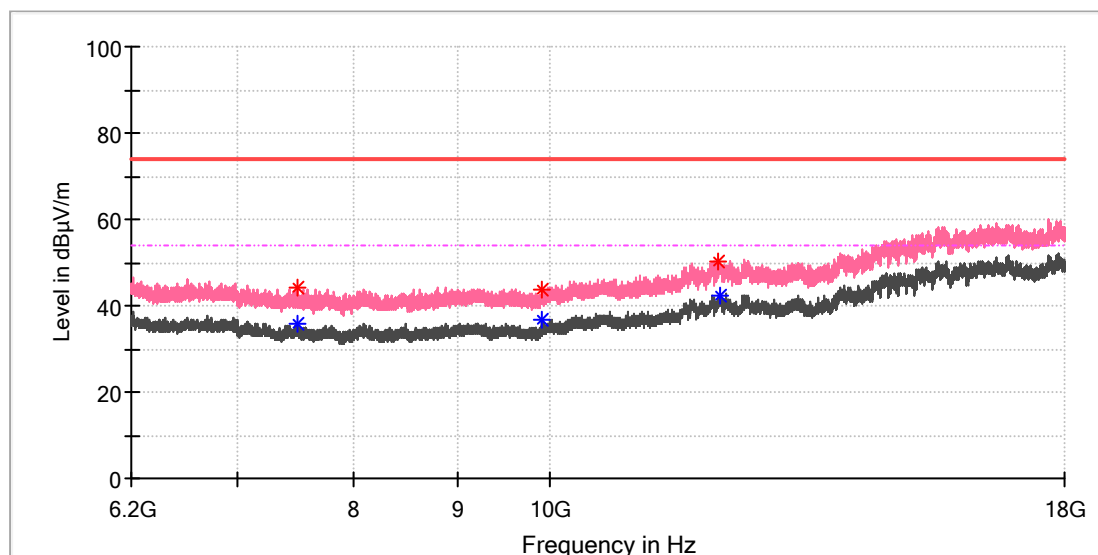
Final Result

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)
---	---	---	---	---	---		---	---

EUT Information

EUT Name:	Medium Portable Bluetooth Speaker
Model:	NS-BTSTM
Test Mode:	BLE 1M_High channel
Order No/Sample No:	27234703/A004278026-003
Test Voltage:	Battery
Remark:	Temp 23.5°C Humi:54%
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)
7489.641667	44.30	---	74.00	29.70	150.0	V	330.0	8.7
7492.591667	---	36.05	54.00	17.95	150.0	V	148.0	8.7
9919.950000	43.92	---	74.00	30.08	150.0	V	114.0	10.8
9919.950000	---	36.91	54.00	17.09	150.0	V	114.0	10.8
12124.091667	50.07	---	74.00	23.93	150.0	V	248.0	16.1
12148.675000	---	42.45	54.00	11.55	150.0	V	42.0	16.7

Final Result

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)
----	----	----	----	----	----		----	----

