

Prüfbericht-Nr.: <i>Test report no.:</i>	CN25LGW3 001	Auftrags-Nr.: <i>Order no.:</i>	170423584	Seite 1 von 29 Page 1 of 29
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	2062640	Auftragsdatum: <i>Order date:</i>	2025.06.30	
Auftraggeber: <i>Client:</i>	AEB INDUSTRIALE S.R.L. VIA Brodolini, 8 - Località Crespellano 40053 - VALSAMOGGIA (BO), Italy.			
Prüfgegenstand: <i>Test item:</i>	Entertainment System			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	ES 503			
Auftrags-Inhalt: <i>Order content:</i>	FCC&IC approval			
Prüfgrundlage: <i>Test specification:</i>	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 CFR47 FCC Part 2: Section 2.1091 RSS-247 Issue 4 July 24, 2025 RSS-Gen Issue 5 April 2018, Amendment 1(March 2019), Amendment 2(February 2021) RSS-102 Issue 6 December 15, 2023			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2025.07.17			
Prüfmuster-Nr.: <i>Test sample no.:</i>	A004046419-001			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	Refer to section 2			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	 Jonathan Li an Li		genehmigt von: <i>authorized by:</i>	 Lin Lin
Datum: <i>Date:</i>	2025-09-15	Signed by: Jonathan Li	Ausstellungsdatum: <i>Issue date:</i>	2025-09-22 Signed by: Lin Lin
Stellung / Position:	Project Manager		Stellung / Position:	Authorizer
Sonstiges / <i>Other:</i>	FCC ID: 2ADDV-ES503 IC: 12207-ES503 HVIN: ES 503			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* 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
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Anmerkungen Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
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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 115:2021, 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>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>

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.8 20dB BANDWIDTH

RESULT: Pass

5.1.9 CARRIER FREQUENCY SEPARATION

RESULT: Pass

5.1.10 NUMBER OF HOPPING FREQUENCY

RESULT: Pass

5.1.11 TIME OF OCCUPANCY

RESULT: Pass

5.1.12 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

6.1.1 ELECTROMAGNETIC FIELDS

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 1: Photographs of the Test Set-up

Appendix 2: Test Results

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

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

A2LA Cert. No.: 5162.01

FCC Accreditation Designation No.: 694916

ISED wireless device testing laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

For the measurement Equipment list, refer to the appendix 2.

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)
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)	± 3.70 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 2 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 submitted model **ES 503** is Entertainment System. The unit supports Bluetooth wireless technologies.

According to the above information, all applicable tests were performed on **ES 503** in this report.

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

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Entertainment System
Type Designation	ES 503
Classification of Receiver	Category 1
Operating Temperature Range	0 °C ~ 45 °C
Rated input	AC 100-120V, AC 220-240V 50Hz/60Hz
Testing Voltage	AC 120V, 60Hz for complete machine, DC 3.3V for module
Protection Class	I
Technical Specification of Bluetooth (dual mode)	
Operating Frequency band	2402MHz to 2480 MHz
Modulation	GFSK, 8DPSK, $\pi/4$ DQPSK
Channel Number	BR & EDR mode:79 channels, Low Energy mode:40 channels
Channel separation	BR & EDR mode:1MHz, Low Energy mode:1MHz, 2MHz
Extreme Temperature Range	0°C to +45°C
Antenna Type	PCB Layout Antenna
Antenna Gain	3.3 dBi Max
Note: All information as declared by the manufacturer.	

Table 3: RF Channel and Frequency of BDR/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	/	/

Table 4: RF Channel and Frequency of Bluetooth Low Energy

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

Test frequencies are lowest channel: 2402 MHz, middle channel: 2441/2440 MHz and highest channel: 2480 MHz.

Table 5: Frequency Hopping Information

Technical Specification	Description
Hopping Range	Hereby we declare that the frequency range of this device is: 2402-2480MHz. This is according the Bluetooth Core Specification V5.4 (double mode) for devices which will be operated in the USA. This was checked during the Bluetooth Qualification tests (Test Case: TRM/CA/04-E).
Hopping Sequence	Example of a 79 hopping sequence in data mode: 33,04,21,44,23,42,53,46,55,48,40,59,72,29,76,31,08,73,07,75,09,45,60,39,58,13,47,11,77,52,35,50,65,54,67,56,69,62,71,64, 7,25,27,66,57,70,74,61,78,63,10,41,05,43,15,44,64,68,02,70,06,01,51,03,55,05,03,66,53,49,36,47,
Receiver input bandwidth	The input bandwidth of the receiver is 1MHz. In every connection one Bluetooth device is the master and the other one is the slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master. Additionally the type of connection is set up at the beginning of the connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also the slave of the connection will use these settings. Repeating of a packer has no influence on the hopping sequence. The hopping sequence generated by the master of the connection will be followed in any case. That means a repeated packet will not be send on the same frequency, it is send on the next frequency of the hopping sequence.

3.3 Independent Operation Modes

The basic operation modes are:

- A. On
 - 1. Traditional Bluetooth (BR mode or EDR mode or BLE mode)
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, Traditional Bluetooth on Hopping channel
- C. On, Normal operation mode with Bluetooth connected
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

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

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

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

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

4.2 Test Operation and Test Software

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

According to clause 3.1, all tests were performed on model ES 503 in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 6: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Notebook	Lenovo	T14	PF-35VTG1	N/A
Mobile phone	Xiaomi	Mi 11	29667/R2RK01332	N/A

4.4 Countermeasures to Achieve EMC Compliance

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

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

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

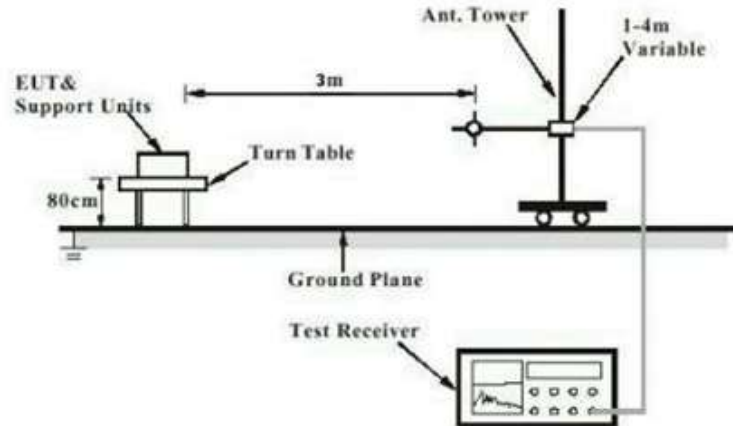


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

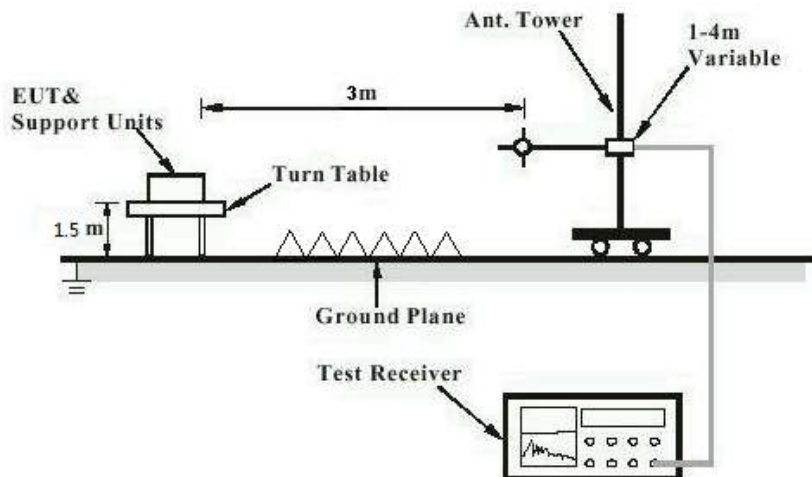


Diagram of Measurement Configuration for Mains Conduction Measurement

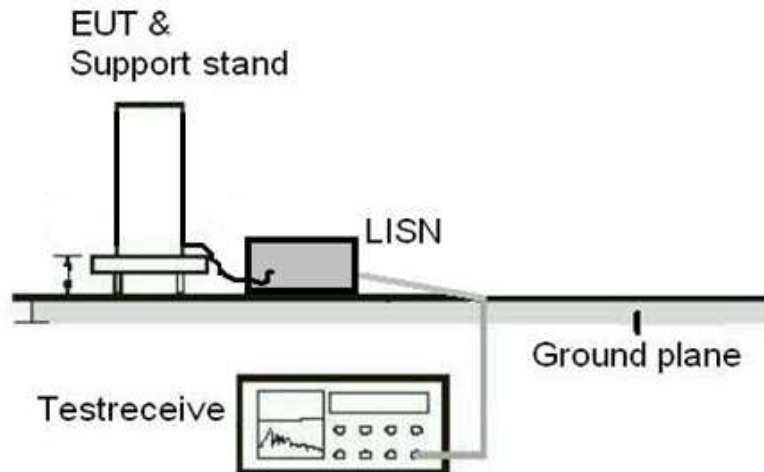
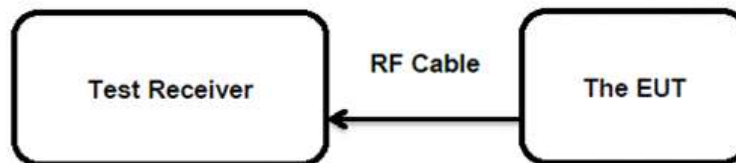


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

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

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

According to the manufacturer declared, the EUT has one internal antenna, the directional gain of antenna is 3.3dBi, 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.

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

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

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

Test standard	: FCC Part 15.247(b)(1)&(3) RSS-247 Clause 6.2.3.2 and 6.3.2
Basic standard	: C63.10-2020, ANSI C63.10-2020+Cor.1-2023
Limits	: FHSS < 0.125 Watts
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 12.08.2025
Input voltage	: 120V/60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

Note:

- 1) The cable loss has been taken into account in results.
- 2) Antenna gain(G): 3.3dBi,

5.1.3 Conducted Power Spectral Density

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(e)
RSS-247 Clause 6.3.1

Basic standard : C63.10-2020, ANSI C63.10-2020+Cor.1-2023

Kind of test site : Shielded Room

Test Setup

Date of testing : 12.08.2025

Input voltage : 120V/60Hz

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 24 °C

Relative humidity : 50 %

Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

5.1.4 6dB Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(a)(2)
Basic standard : C63.10-2020, ANSI C63.10-2020+Cor.1-2023
Limits : More than 500 KHz
Kind of test site : Shielded Room

Test Setup

Date of testing : 12.08.2025
Input voltage : AC 120V 60Hz
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 24 °C
Relative humidity : 50 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

5.1.5 99% Bandwidth

RESULT:

Pass

Test Specification

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

Test Setup

Date of testing : 12.08.2025
Input voltage : AC 120V 60Hz
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 24 °C
Relative humidity : 50 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d) RSS-247 Clause 6.6
Basic standard	: C63.10-2020, ANSI C63.10-2020+Cor.1-2023
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	: Refer to test result
Input voltage	: 120V/60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24 °C
Relative humidity	: 50 %
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 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

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5.1.7 Radiated Spurious Emission

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

Test standard : FCC Part 15.247(d) & FCC Part 15.205
RSS-Gen Clause 8.9 and 8.10

Basic standard : C63.10-2020, ANSI C63.10-2020+Cor.1-2023

Limits : Refer to 15.209(a) of FCC part 15.247(d)
RSS-Gen Issue 5 Table 5

Kind of test site : 3m Semi-anechoic Chamber

Test Setup

Date of testing : Refer to test result

Input voltage : 120V/60Hz

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 22 °C

Relative humidity : 53 %

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 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

5.1.8 20dB Bandwidth**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(a)(1)
RSS-247 Clause 6.2.1
Basic standard : C63.10-2020, ANSI C63.10-2020+Cor.1-2023
Kind of test site : Shielded Room

Test Setup

Date of testing : 12.08.2025
Input voltage : 120V/60Hz
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 24 °C
Relative humidity : 50 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

5.1.9 Carrier Frequency Separation

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

Test standard	: FCC Part 15.247(a)(1) RSS-247 Clause 6.2.3.1
Basic standard	: C63.10-2020, ANSI C63.10-2020+Cor.1-2023
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	: 12.08.2025
Input voltage	: 120V/60Hz
Operation mode	: B
Test channel	: Low / Middle / High
Ambient temperature	: 24 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

5.1.10 Number of Hopping Frequency**RESULT:****Pass****Test Specification**

Test standard : FCC part 15.247(a)(1)(iii)
RSS-247 Clause 6.2.3.1

Basic standard : C63.10-2020, ANSI C63.10-2020+Cor.1-2023

Limits : ≥ 15 non-overlapping channels

Kind of test site : Shielded Room

Test Setup

Date of testing : 12.08.2025

Input voltage : 120V/60Hz

Operation mode : B

Ambient temperature : 24 °C

Relative humidity : 50 %

Atmospheric pressure : 101 kPa

For details refer to following test result.

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

Table 7: Test Result of Number of Hopping Frequency

Test Mode	Frequency Range	Measured Quantity of Hopping Channel	Limit
FHSS	2400-2483.5MHz	79	≥ 15

5.1.11 Time of Occupancy**RESULT:****Pass****Test Specification**

Test standard	: FCC part 15.247(a)(1)(iii) RSS-247 Clause 6.2.3.1
Basic standard	: C63.10-2020, ANSI C63.10-2020+Cor.1-2023
Limits	: < 0.4s
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 12.08.2025
Input voltage	: 120V/60Hz
Operation mode	: B
Test channel	: Low / Middle / High
Ambient temperature	: 24 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

Note:

Dwell time = Pulse width x Number of channels in Period

Period = 0.4 (seconds/ channel) x 79 (channel) = 31.6 seconds

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Page 27 of 29**5.1.12 Conducted Emission on AC Mains****RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.207(a) RSS-Gen Clause 8.8
Basic standard	: C63.10-2020, ANSI C63.10-2020+Cor.1-2023
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	: Refer to test result
Input voltage	: 120V/60Hz
Operation mode	: A
Earthing	: Not connected
Ambient temperature	: 20 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 2. The test data in appendix 2 is the worst result after the EUTs were tested with all mode.

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:

Pass

Report No.	CN25LGW3 001
Test Specification	
Test item	Entertainment System
Identification / Type No.	ES 503
FCC ID	2ADDV-ES503
IC	12207-ES503
HVIN	ES 503
Test standard	CFR47 FCC Part 2: Section 2.1093 FCC KDB Publication 447498 D01 v06 RSS-102 Issue 6 December 15, 2023

Measurement Record:

The minimum distance for the EUT is less than 5mm.

For FCC:

Since maximum peak output power of the transmitter is $-7.90 \text{ dBm} \approx 0.160 \text{ mW} < \frac{3 \cdot d}{\sqrt{f}} = 9.68 \text{ mW}$.

Hence the EUT is excluded from SAR evaluation according to FCC KDB Publication 447498 D01 General RF Exposure Guidance v06.

For IC:

The higher of the maximum e.i.r.p. or conducted power of the transmitter is $-4.60 \text{ dBm} \approx 0.350 \text{ mW}$, which is below the SAR exclusion threshold level $3 \text{ mW} \approx 4.77 \text{ dBm}$.

Hence the EUT is exempted from routine evaluation limits (SAR Evaluation) according to clause 6.3 of RSS-102 Issue 6.

7 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix 1.

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