Prüfbericht-Nr.: *Test report no.:*	**CN25OJBD 004**	**Auftrags-Nr.:** *Order no.:*	168539409	Seite 1 von 22 *Page 1 of 22*
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2025-01-13	
Auftraggeber: *Client:*	**Edifier International Limited** P.O. Box 6264 General Post Office, Hong Kong			
Prüfgegenstand: *Test item:*	Tabletop Wireless Speaker			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	EDF100092, S300 (Trademark: EDIFIER)			
Auftrags-Inhalt: *Order content:*	Type Test			
Prüfgrundlage: *Test specification:*	EN 300 440 V2.1.1 (2017-03) ETSI EN 300 440 V2.1.1 (2017-03)			
Wareneingangsdatum: *Date of sample receipt:*	2025-01-20			
Prüfmuster-Nr.: *Test sample no.:*	S25011512-001 S25011512-009			
Prüfzeitraum: *Testing period:*	2025-01-23 - 2025-02-17			
Ort der Prüfung: *Place of testing:*	Guangdong Dongdian Testing Service Co.,Ltd.			
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: *Test result*:*	Pass			



geprüft von: *tested by:*	x	**genehmigt von:** *authorized by:*	x
Datum: *Date:* 2025-03-11	Signed by: Harry W. C. Wu	**Ausstellungsdatum:** *Issue date:* 2025-03-11	Signed by: Alex Lan
Stellung / Position	Project Manager	**Stellung** / Position	Authorizer

Sonstiges / *Other:*

This report is for Article 3.2 Radio Spectrum of EN 300 440 of 5.8GHz Wi-Fi function requirements only.

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*	Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged:*

* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*P(ass) = passed a.m. test specification(s)*	*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report only relates to the a. m. 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.

Anmerkungen

Remarks

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. *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.*
2	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. *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.*
3	Test clauses with remark of * are subcontracted to qualified subcontractors and descripted 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. *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.*
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. *Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen 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 bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.*

Test Summary

5.1.1 EQUIVALENT ISOTROPIC RADIATED POWER
RESULT: Pass

5.1.2 PERMITTED RANGE OF OPERATING FREQUENCIES
RESULT: Pass

5.1.3 TRANSMITTER UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN
RESULT: Pass

5.1.4 DUTY CYCLE
RESULT: Pass

5.2.1 ADJACENT CHANNEL SELECTIVITY
RESULT: Pass

5.2.2 BLOCKING OR DESENSITIZATION
RESULT: Pass

5.2.3 SPURIOUS RADIATION
RESULT: Pass

Contents

1 GENERAL REMARKS 5
1.1 COMPLEMENTARY MATERIALS 5
2 TEST SITES 5
2.1 TEST FACILITIES 5
2.2 LIST OF TEST AND MEASUREMENT INSTRUMENTS 6
2.3 UNCERTAINTY OF MEASUREMENT 7
3 GENERAL PRODUCT INFORMATION 8
3.1 PRODUCT FUNCTION AND INTENDED USE 8
3.2 RATINGS AND SYSTEM DETAILS 8
3.3 INDEPENDENT OPERATION MODES 10
3.4 NOISE GENERATING AND NOISE SUPPRESSING PARTS 10
3.5 SUBMITTED DOCUMENTS 10
4 TEST SET-UP AND OPERATION MODES 11
4.1 PRINCIPLE OF CONFIGURATION SELECTION 11
4.2 TEST OPERATION AND TEST SOFTWARE 11
4.3 SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT 11
4.4 COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE 11
5 TEST RESULTS ERM 12
5.1 TRANSMITTER REQUIREMENT & TEST SUITES 12
5.1.1 Equivalent Isotropic Radiated Power 12
5.1.2 Permitted Range of Operating Frequencies 14
5.1.3 Transmitter Unwanted Emissions in the Spurious Domain 15
5.1.4 Duty Cycle 16
5.2 RECEIVER REQUIREMENT & TEST SUITES 17
5.2.1 Adjacent Channel Selectivity 17
5.2.2 Blocking or Desensitization 18
5.2.3 Spurious Radiation 19
6 PHOTOGRAPHS OF THE TEST SET-UP 20
7 LIST OF TABLES 22
8 LIST OF PHOTOGRAPHS 22

1 General Remarks

1.1 Complementary Materials

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

Appendix A: Test Result.

2 Test Sites

2.1 Test Facilities

Guangdong Dongdian Testing Service Co.,Ltd.
Unit 2, Building 1, No.17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

CNAS No.: L6451

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Equipment	Manufacturer	Model No.	Serial Number	Due Date	Cal. Interval
☒ RF Connected Test (RF Measurement System 1#)					
Signal &Spectrum Analyzer	R&S	FSV3044	101173	2025/03/31	1 Year
Wideband Radio Communication Tester	R&S	CMW500	168801	2025/03/31	1 Year
MXG Vector Signal Generator	Agilent	N5182A	MY48180737	2025/03/31	1 Year
PSG Vector Signal Generator	Agilent	E8267D	US49060192	2024/09/05	1 Year
RF Control Unit	Tonsend	JS0806-2	21I8060485	2025/03/31	1 Year
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2025/04/22	1 Year
Test Software	Tonscend	JS1120-3	Ver.3.2.22	N/A	N/A

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To	Cal. Interval
High Pass filter	Xi'an Xingbo	XBLBQ-GTA67	DDT-ZC02179	2025/04/22	1 Year
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2025/04/22	1 Year
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/	/
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2025/03/31	1 Year
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2025/03/31	1 Year
RF cable	Yuhu Technology	JCTB810-NJ-NJ-9M	DDT-ZC02538	2025/03/31	1 Year
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2025/03/31	1 Year
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ-1.5M	DDT-ZC02762	2025/03/31	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2025/07/11	2 Year
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2025/07/08	1 Year
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2025/04/22	1 Year
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/	/
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/11	2 Year
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2025/03/31	1 Year
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2025/04/26	1 Year
Hochgewinn-Hornantenne	SCHWARZBECK	BBHA 9120 D	DDT-ZC02129	2025/09/18	2 Year
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2025/03/31	1 Year
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2025/03/31	1 Year

2.3 Uncertainty of Measurement

The value of the measurement uncertainty of each parameter is listed as below:

Table 2: Maximum Measurement Uncertainty

Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.40 dB (3.6 GHz ≤ f < 8 GHz)
	1.66 dB (8 GHz ≤ f < 26.5 GHz)
Uncertainty for radio frequency (RBW < 20 kHz)	3×10^{-8}
Temperature	0.4 ℃
Humidity	2 %
Uncertainty for Radiation Emission test (9 kHz – 30 MHz)	3.44 dB
Uncertainty for Radiation Emission test (30 MHz - 1 GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz - 40 GHz)	4.10 dB (1 - 6 GHz)
	4.40 dB (6 GHz - 18 GHz)
	3.54 dB (18 GHz - 26 GHz)
	4.30 dB (26 GHz - 40 GHz)
Uncertainty for Power line conduction emission test	3.34dB (150KHz-30MHz)
	3.72dB (9KHz-150KHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a Tabletop Wireless Speaker with Bluetooth Dual technology and 802.11 g/n (Wi-Fi), technologies, the product comes with an infrared remote control, it used for audio entertainment in house or similar environment.

Two models are identical except the model number different for different market purpose.

Manufacturer: Beijing Edifier Technology Co., Ltd.
Address: 815, Floor 8, Shuangqiao Building, No.68, North Fourth Ring West Road, Haidian District, 100080 Beijing, P.R. China

Factory: Dongguan Edifier Technology Co., Ltd.
Address: No.2 Gongyedong Road, Songshan Lake Sci.&Tech. Industry Park, Dongguan, 523808 Guangdong, P.R. China

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

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Tabletop Wireless Speaker
Type Designation	EDF100092, S300
Trade Mark	EDIFIER
Extreme Temperature Range	0°C - +35°C
Operating Voltage	AC 100-240V, 50/60Hz, 750mA
Technical Specification of Bluetooth (BDR & EDR)	
Operating Frequency Channel	2402 – 2480 MHz
Bluetooth Core Version	5.4
Channel Number	79 channels
Channel separation	1MHz
Modulation	GFSK, π/4DQPSK, 8DPSK
Antenna Number	1
Antenna Type	FPC antenna
Antenna Gain	3.27 dBi (Provide by the Client)

Technical Specification of Bluetooth (Bluetooth Low Energy)	
Operating Frequency Channel	2402 – 2480 MHz for data rate 1Mbps 2404 – 2478 MHz for data rate 2Mbps
Bluetooth Core Version	5.4
Data rate	1Mbps, 2Mbps
Channel Number	40 channels for data rate 1Mbps 37 channels for data rate 2Mbps Note: 2402MHz/2426MHz/2480MHz will be disable via software for date rate 2Mbps.
Channel separation	2MHz
Modulation	GFSK
Antenna Number	1
Antenna Type	FPC antenna
Antenna Gain	3.27 dBi (Provide by the Client)

Technical Specification of 802.11 g/n Wi-Fi	
Operating channel frequency	2412-2472MHz for 802.11 g/n-HT20
Type of modulation	OFDM(BPSK/QPSK/16QAM/64QAM)
Data rate	6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 for 802.11n(HT20)
Channel number	13 Channels for 802.11 g/n-HT20
Channel separation	5 MHz
Antenna Number	1
Antenna Type	FPC antenna
Antenna Gain	1.94 dBi (Provide by the Client)

Technical Specification of Wi-Fi 802.11 n (Band1/2/3)	
Operating Frequency Range	5150-5250MHz, 5250-5350MHz, 5470-5725MHz
Operating Frequency / Channels / Protocol	5180-5320MHz, 15CHs, 802.11 n20; 5500-5700MHz, 19CHs, 802.11 n20
Data Rate	MCS0 ~ MCS7 Mbps for 802.11n
Channel Separation	20MHz
Modulation	OFDM (BPSK, QPSK, 16QAM, 64QAM)
Type of Product	Adaptive equipment and does not support non-adaptive mode; LBT based Detect and Avoid (load based equipment)
Beamforming	Not Supported
DFS Operational mode	Slave without radar detection
Antenna Number	1
Antenna Type	FPC antenna
Antenna Gain	2.32 dBi for 5150-5250MHz 3.27 dBi for 5250-5350MHz 2.85 dBi for 5470-5725MHz (Provide by the Client)

Technical Specification of Wi-Fi 802.11 n (Band 4)	
Operating Frequency Range	5725-5875MHz
Operating Frequency / Channels / Protocol	5.8GHz Wi-Fi: 5745-5825MHz, 8CHs, 802.11n20
Channel Spacing	20MHz
Modulation	OFDM (BPSK, QPSK, 16QAM, 64QAM)
Beamforming	Not Supported
Receiver category	Receiver category 1
Antenna Number	1
Antenna Type	FPC antenna
Antenna Gain	2.86 dBi (Provide by the Client)

Table 4: RF Channel and Frequency of 5.8 GHz Wi-Fi

RF Channel and Frequency of 5.8G Wi-Fi, 20MHz bandwidth							
RF Channel	**Frequency (MHz)**	**RF Channel**	**Frequency (MHz)**	**RF Channel**	**Frequency (MHz)**	**RF Channel**	**Frequency (MHz)**
149	**5745**	153	5765	**157**	**5785**	161	5805
165	**5825**	/	/	/	/	/	/

3.3 Independent Operation Modes

The basic operation modes are:

A. On, Tx, 5.8GHz Wi-Fi

B. On, Rx, 5.8GHz Wi-Fi

C. Idle

D. Off

3.4 Noise Generating and Noise Suppressing Parts

For details refer to the Circuit Diagram.

3.5 Submitted Documents

- Block Diagram
- Rating Label
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

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.
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.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5 and chapter 7.

According to clause 3.1, all test were applied on model EDF100092.

Table 5: Test environments

Environment Parameter	Selected Values During Tests		
	Temperature	Voltage (adapter)	Relative Humidity
NTNV	24.1°C	230Vac	Ambient
LTLV	-20 °C	207Vac	---
LTHV	-20 °C	253Vac	---
HTLV	35 °C	207Vac	---
HTHV	35 °C	253Vac	---

Table 6: Test channel and frequency

Mode	Test Channels	Remark
Wi-Fi 5.8GHz band	L: CH149, 5745MHz M: CH157, 5785MHz H: CH165, 5825MHz	802.11 n-HT20 20MHz bandwidth

4.3 Special Accessories and Auxiliary Equipment

Table 7: 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.

5 Test Results ERM

5.1 Transmitter Requirement & Test Suites

5.1.1 Equivalent Isotropic Radiated Power

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 440 V2.1.1
Test requirement	:	Clause 4.2.2 of EN 300 440 V2.1.1
Limit	:	Clause 4.2.2.4 Table 2 of EN 300 440 V2.1.1
Test suites	:	Clause 4.2.2.3 of EN 300 440 V2.1.1

Test Setup

Date of testing	:	2025-01-23 - 2025-02-17
Test voltage	:	AC 230V/50Hz
Test environment	:	Normal and extreme temperature
Operation mode	:	A
Ambient temperature	:	23.8 ℃
Relative humidity	:	47.9 %
Atmospheric pressure	:	101.4 kPa

For the measurement records, refer to the appendix A (only the worst data normal environment recorded)

Table 8: Test Results of 6dB Bandwidth

Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11N20MIMO	Ant1	5745	16.60	5737.20	5753.80	---	---
		5785	16.60	5777.20	5793.80	---	---
		5825	16.60	5817.20	5833.80	---	---

Table 9: Test result of Equivalent isotropic radiated power

Test Condition	Test Mode	Antenna	Frequency [MHz]	TPC	A [dBm]	Duty Cycle [%]	DC Factor [dB]	Conducted power Result [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
NTNV	11N20MIMO	Ant1	5745	NA	9.97	100.00	0.00	9.97	12.83	14	PASS
			5785	NA	8.97	100.00	0.00	8.97	11.83	14	PASS
			5825	NA	8.72	100.00	0.00	8.72	11.58	14	PASS
LTNV	11N20MIMO	Ant1	5745	NA	9.99	100.00	0.00	9.99	12.85	14	PASS
			5785	NA	8.99	100.00	0.00	8.99	11.85	14	PASS
			5825	NA	8.69	100.00	0.00	8.69	11.55	14	PASS
HTNV	11N20MIMO	Ant1	5745	NA	9.95	100.00	0.00	9.95	12.81	14	PASS
			5785	NA	8.94	100.00	0.00	8.94	11.80	14	PASS
			5825	NA	8.70	100.00	0.00	8.70	11.56	14	PASS

5.1.2 Permitted Range of Operating Frequencies

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 440 V2.1.1
Test requirement	:	Clause 4.2.3 of EN 300 440 V2.1.1
Limit	:	Clause 4.2.3.5 of EN 300 440 V2.1.1
Test suites	:	Clause 4.2.3.3 of EN 300 440 V2.1.1

Test Setup

Date of testing	:	2025-01-23 - 2025-02-17
Test voltage	:	AC 230V/50Hz
Test environment	:	Normal temperature
Operation mode	:	A
Ambient temperature	:	23.8 ℃
Relative humidity	:	47.9 %
Atmospheric pressure	:	101.4 kPa

For the measurement records, refer to the appendix A.

5.1.3 Transmitter Unwanted Emissions in the Spurious Domain

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 440 V2.1.1
Test requirement	:	Clause 4.2.4 of EN 300 440 V2.1.1
Limit	:	Clause 4.2.4.4 of EN 300 440 V2.1.1
Test suites	:	Clause 4.2.4.3 of EN 300 440 V2.1.1

Test Setup

Date of testing	:	2024-07-04 - 2024-08-17
Test voltage	:	AC 230V/50Hz
Test environment	:	Normal temperature
Operation mode	:	A
Ambient temperature	:	Refer to test data
Relative humidity	:	Refer to test data
Atmospheric pressure	:	101.4 kPa

For the measurement records, refer to the appendix A.

5.1.4 Duty Cycle

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 440 V2.1.1
Test requirement	:	Clause 4.2.5 of EN 300 440 V2.1.1
Limit	:	Clause 4.2.5.4 of EN 300 440 V2.1.1
Test suites	:	Clause 4.2.5.3 of EN 300 440 V2.1.1

Test Setup

Date of testing	:	2025-01-23 - 2025-02-17
Test voltage	:	AC 230V/50Hz
Test environment	:	Normal temperature
Operation mode	:	A
Ambient temperature	:	23.8 ℃
Relative humidity	:	47.9 %
Atmospheric pressure	:	101.4 kPa

For the measurement records, refer to the appendix A.

5.2 Receiver Requirement & Test Suites

5.2.1 Adjacent Channel Selectivity

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 440 V2.1.1
Test requirement	:	Clause 4.3.3 of EN 300 440 V2.1.1
Limit	:	Clause 4.3.3.4 Table 2 of EN 300 440 V2.1.1
Test suites	:	Clause 4.3.3.5 of EN 300 440 V2.1.1

Test Setup

Date of testing	:	2025-01-23 - 2025-02-17
Test voltage	:	AC 230V/50Hz
Test environment	:	Normal temperature
Operation mode	:	A
Ambient temperature	:	23.8 ℃
Relative humidity	:	47.9 %
Atmospheric pressure	:	101.4 kPa

Table 10: Test Results of Adjacent Channel Selectivity

802.11 n-HT20

Signal A	Signal B	Signal B level (dBm)	Limit(dBm)	Result
Operation Frequency (MHz)	Blocking Frequency			
5785	upper adjacent channel	-48.5	-30 dBm + k	Pass
	lower adjacent channel	-46.5	-30 dBm + k	Pass

Note:
k=-20logf-10logBW

Operation Frequency (MHz)	Channel bandwidth (MHz)	*k*(dBm)
5785	17.729	-27.67

5.2.2 Blocking or Desensitization

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 440 V2.1.1
Test requirement	:	Clause 4.3.4 of EN 300 440 V2.1.1
Limit	:	Clause 4.3.4.4 Table 2 of EN 300 440 V2.1.1
Test suites	:	Clause 4.3.4.5 of EN 300 440 V2.1.1

Test Setup

Date of testing	:	2025-01-23 - 2025-02-17
Test voltage	:	AC 230V/50Hz
Test environment	:	Normal temperature
Operation mode	:	B
Ambient temperature	:	23.8 ℃
Relative humidity	:	47.9 %
Atmospheric pressure	:	101.4 kPa

Table 11: Test Results of Blocking or Desensitization

802.11 n-HT20

Signal A	Signal B	Blocking level (dBm)	Limit(dBm)	Result
Operation Frequency (MHz)	Blocking Frequency			
5745	-50BW	-31.6	-30 dBm + *k*	PASS
	-20BW	-38.2	-30 dBm + *k*	PASS
	-10BW	-45.1	-30 dBm + *k*	PASS
	+10BW	-46.9	-30 dBm + *k*	PASS
	+20BW	-36.5	-30 dBm + *k*	PASS
	+50BW	-30.8	-30 dBm + *k*	PASS

Note:
k=-20logf-10logBW

Operation Frequency (MHz)	Channel bandwidth (MHz)	*k*(dBm)
5745MHz	17.729	-27.67

5.2.3 Spurious Radiation

RESULT: **Pass**

Test Specification

Test standard	:	EN 300 440 V2.1.1
Test requirement	:	Clause 4.3.5 of EN 300 440 V2.1.1
Limit	:	Clause 4.3.5.4 of EN 300 440 V2.1.1
Test suites	:	Clause 4.3.5.3 of EN 300 440 V2.1.1

Test Setup

Date of testing	:	2025-01-23 - 2025-02-17
Test voltage	:	AC 230V/50Hz
Test environment	:	Normal temperature
Operation mode	:	B
Ambient temperature	:	Refer to test data
Relative humidity	:	Refer to test data
Atmospheric pressure	:	101.4 kPa

For the measurement records, refer to the appendix A.

6 Photographs of the Test Set-Up

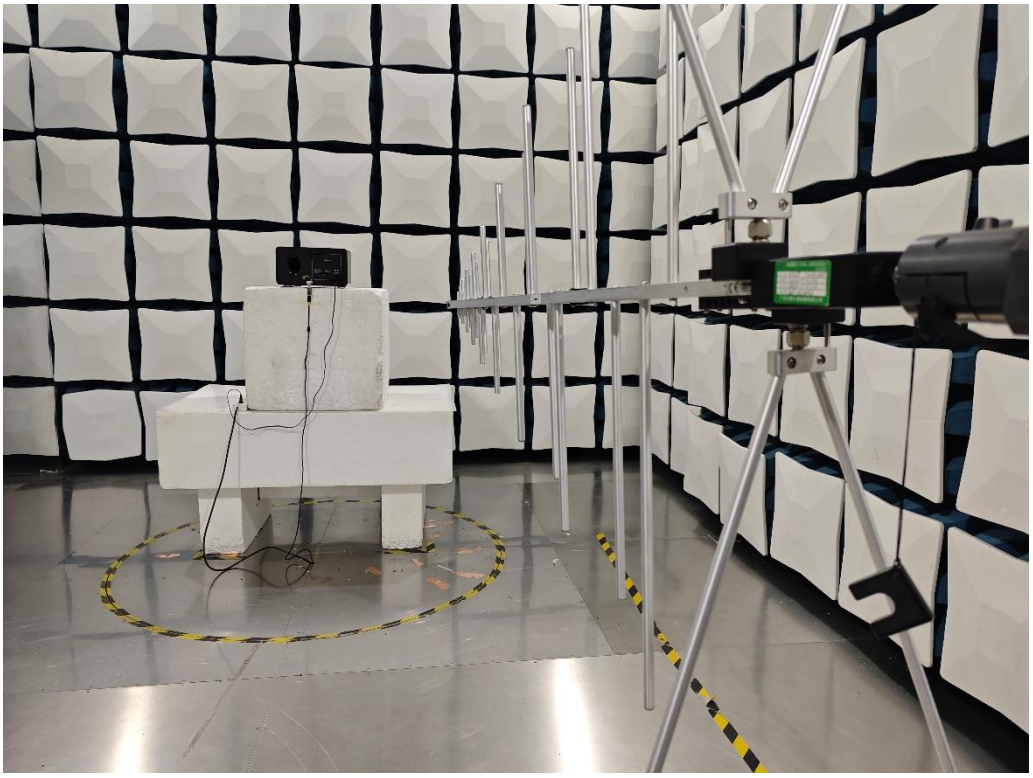
Photograph 1: Set-up for Radio Spectrum Testing, Normal temperature



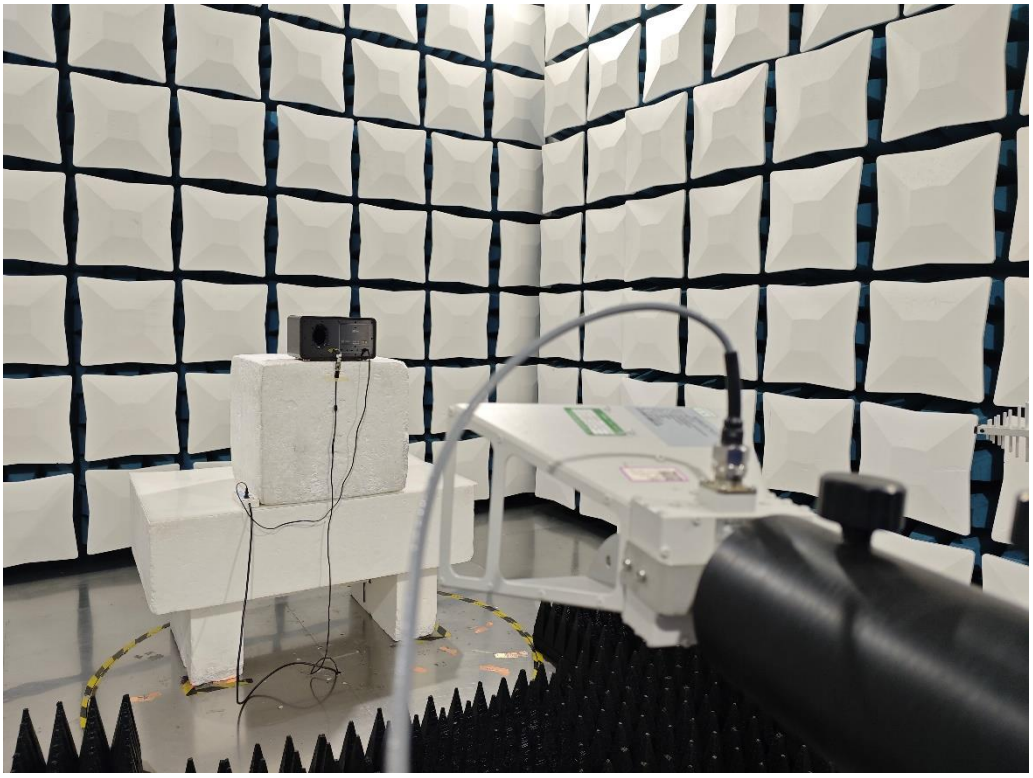
Photograph 2: Set-up for Radio Spectrum Testing, Extreme temperature



Photograph 3: Set-up for Transmitter & Receiver Spurious Emissions, below 1GHz



Photograph 4: Set-up for Transmitter & Receiver Spurious Emissions, Above 1GHz



7 List of Tables

Table 1: List of Test and Measurement Equipment 6
Table 2: Maximum Measurement Uncertainty 7
Table 3: Technical Specification of EUT 8
Table 4: RF Channel and Frequency of 5.8 GHz Wi-Fi 10
Table 5: Test environments 11
Table 6: Test channel and frequency 11
Table 7: List of Accessories and Auxiliary Equipment 11
Table 8: Test Results of 6dB Bandwidth 13
Table 9: Test result of Equivalent isotropic radiated power 13
Table 10: Test Results of Adjacent Channel Selectivity 17
Table 11: Test Results of Blocking or Desensitization 18

8 List of Photographs

Photograph 1: Set-up for Radio Spectrum Testing, Normal temperature 20
Photograph 2: Set-up for Radio Spectrum Testing, Extreme temperature 20
Photograph 3: Set-up for Transmitter & Receiver Spurious Emissions, below 1GHz 21
Photograph 4: Set-up for Transmitter & Receiver Spurious Emissions, Above 1GHz 21

Appendix A

Test Result of 5.8GHz Band Wi-Fi

1 APPENDIX A.1 : RF OUTPUT POWERA 2

2 APPENDIX A.2 : 6DB BANDWIDTH 3

3 APPENDIX A.3 : PERMITTED RANGE OF OPERATING FREQUENCIES 5

3.1 Range of operating frequencies (measure in a 30KHz bandwidth) 5

3.2 99% bandwidth 5

4 APPENDIX A.4 : UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN 7

5 APPENDIX A.5 : SPURIOUS RADIATIONS 19

6 APPENDIX A.6 : DUTY CYCLE 31

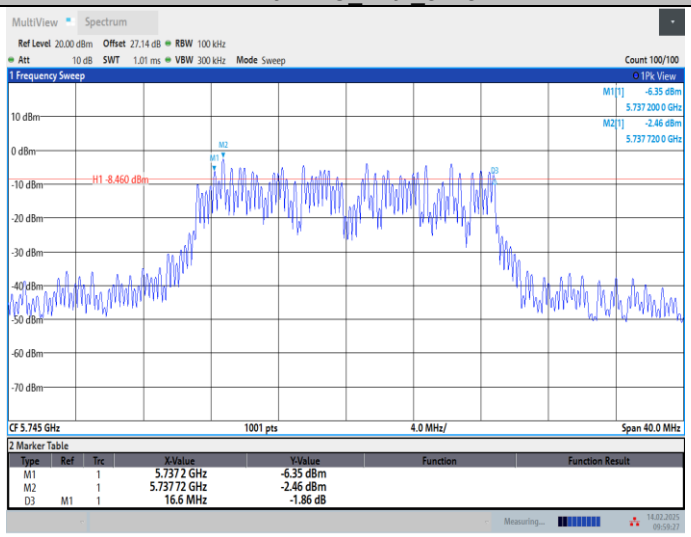
1 Appendix A.1 : RF output powera

Test Condition	Test Mode	Antenna	Frequency [MHz]	TPC	A [dBm]	Duty Cycle [%]	DC Factor [dB]	Conducted power Result [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
NTNV	11N20MIMO	Ant1	5745	NA	9.97	100.00	0.00	9.97	12.83	14	PASS
			5785	NA	8.97	100.00	0.00	8.97	11.83	14	PASS
			5825	NA	8.72	100.00	0.00	8.72	11.58	14	PASS
LTNV	11N20MIMO	Ant1	5745	NA	9.99	100.00	0.00	9.99	12.85	14	PASS
			5785	NA	8.99	100.00	0.00	8.99	11.85	14	PASS
			5825	NA	8.69	100.00	0.00	8.69	11.55	14	PASS
HTNV	11N20MIMO	Ant1	5745	NA	9.95	100.00	0.00	9.95	12.81	14	PASS
			5785	NA	8.94	100.00	0.00	8.94	11.80	14	PASS
			5825	NA	8.70	100.00	0.00	8.70	11.56	14	PASS

2 Appendix A.2 : 6dB Bandwidth

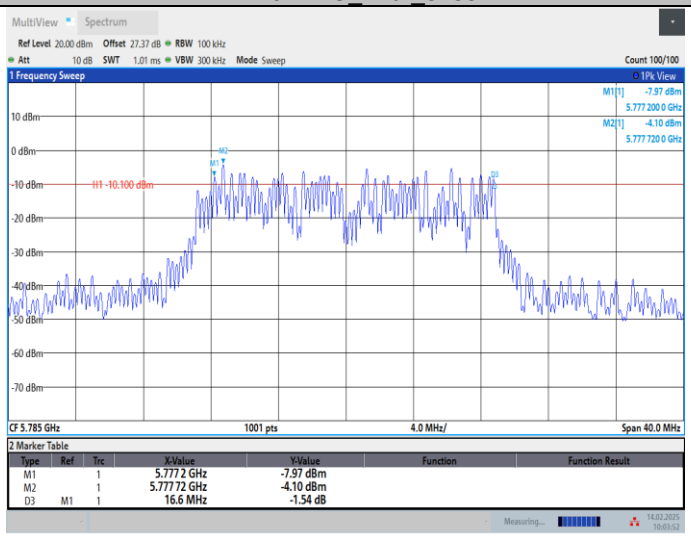
Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11N20MIMO	Ant1	5745	16.60	5737.20	5753.80	---	---
		5785	16.60	5777.20	5793.80	---	---
		5825	16.60	5817.20	5833.80	---	---

11N20MIMO_Ant1_5745



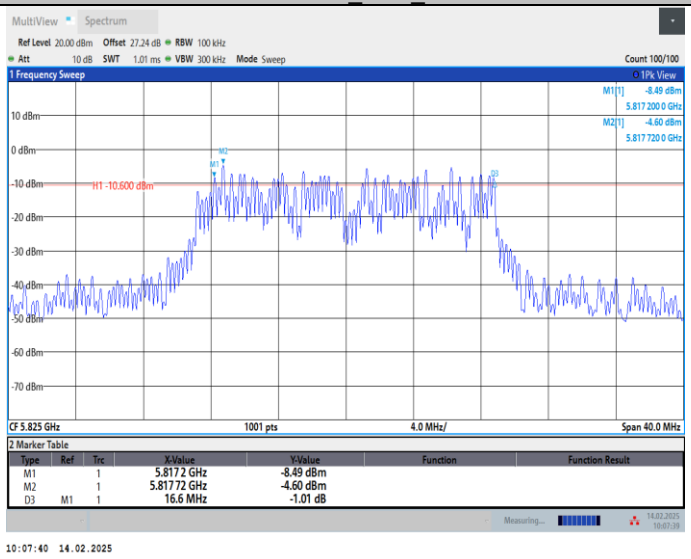
09:59:28 14.02.2025

11N20MIMO_Ant1_5785



10:03:53 14.02.2025

11N20MIMO_Ant1_5825



3 Appendix A.3 : Permitted range of operating frequencies

Note: The lowest and highest frequencies of the occupied bandwidth (99% bandwidth) are within 5725-5875MHz, hence the range of operating frequencies were performed under normal operating condition.

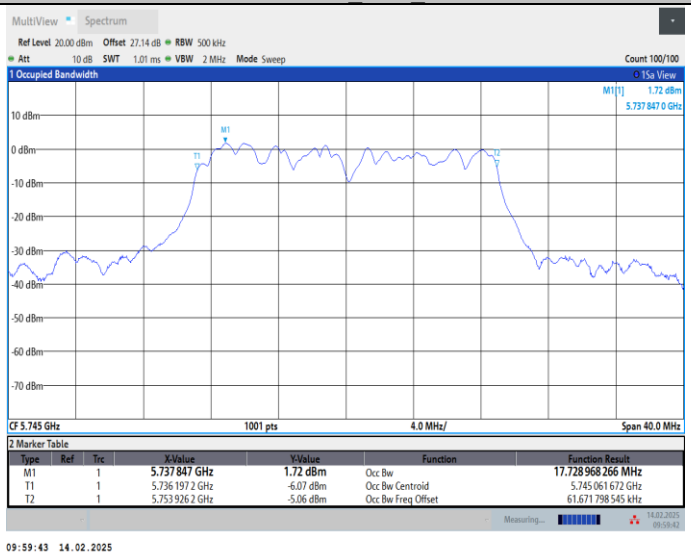
3.1 Range of operating frequencies (measure in a 30KHz bandwidth)

Mode: 802.11n HT20 Antenna1				
Condition	CH	Result (MHz)	Limit (MHz)	Verdict
Normal	5745	5736.18	>5725	Pass
	5825	5833.88	<5875	Pass
LT HV	5745	5736.18	>5725	Pass
	5825	5833.88	<5875	Pass
LT LV	5745	5736.18	>5725	Pass
	5825	5833.88	<5875	Pass
HT HV	5745	5736.18	>5725	Pass
	5825	5833.88	<5875	Pass
HT LV	5745	5736.18	>5725	Pass
	5825	5833.88	<5875	Pass

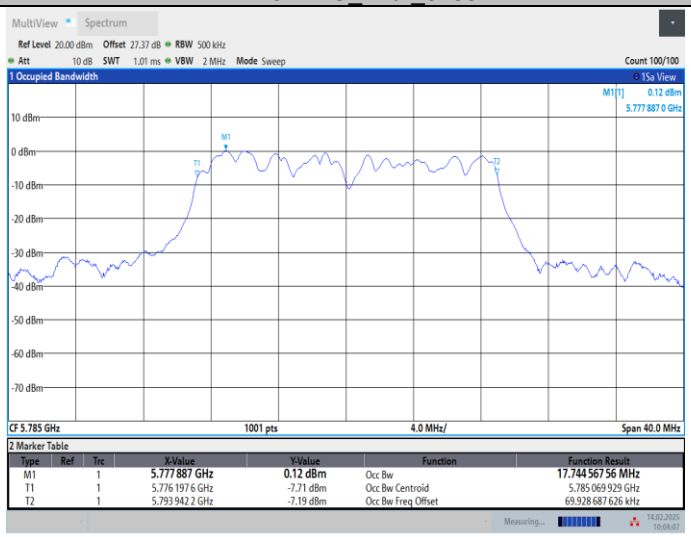
3.2 99% bandwidth

Test Mode	Antenna	Frequency [MHz]	0CB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11N20MIMO	Ant1	5745	17.729	5736.1972	5753.9262	---	---
		5785	17.745	5776.1976	5793.9422	---	---
		5825	17.738	5816.2185	5833.9568	---	---

11N20MIMO_Ant1_5745

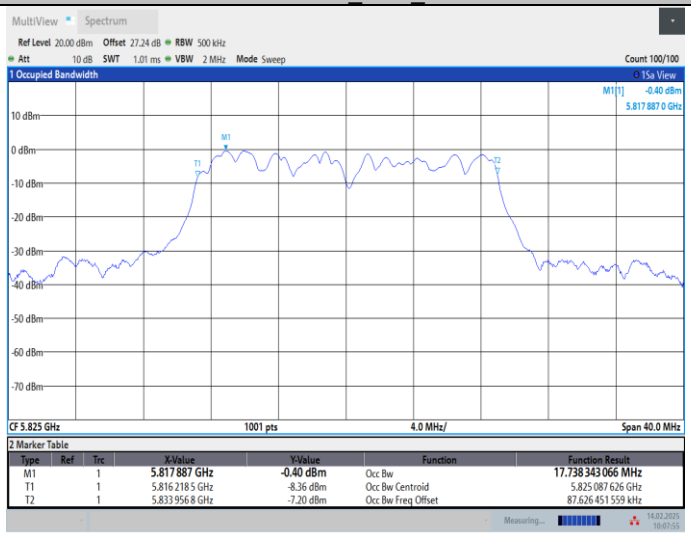


11N20MIMO_Ant1_5785



10:04:08 14.02.2025

11N20MIMO_Ant1_5825



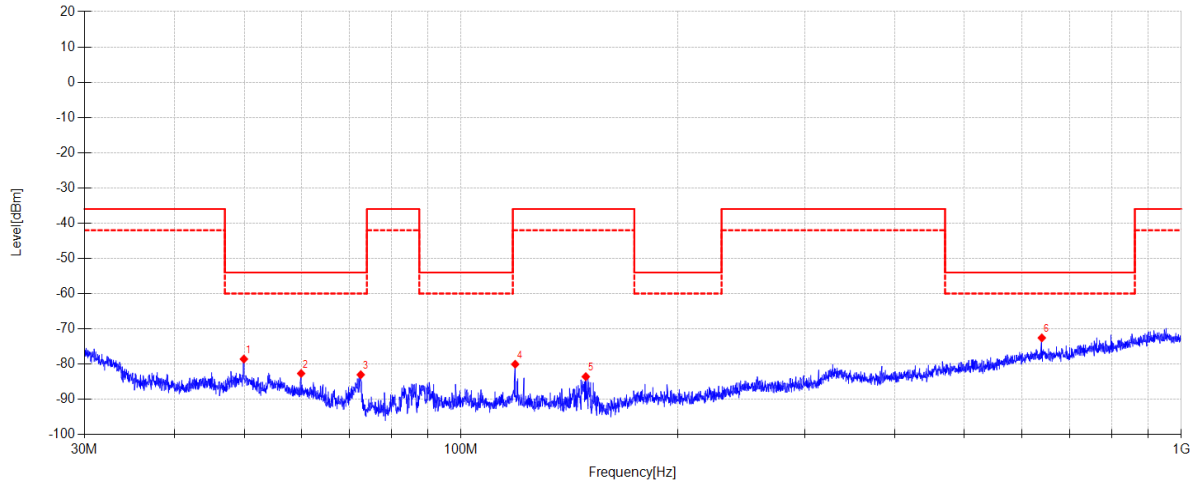
10:07:55 14.02.2025

4 Appendix A.4 : Unwanted emissions in the spurious domain

Note: This testing was carried out on different modulations, but only the worst case was presented in this report.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\19		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



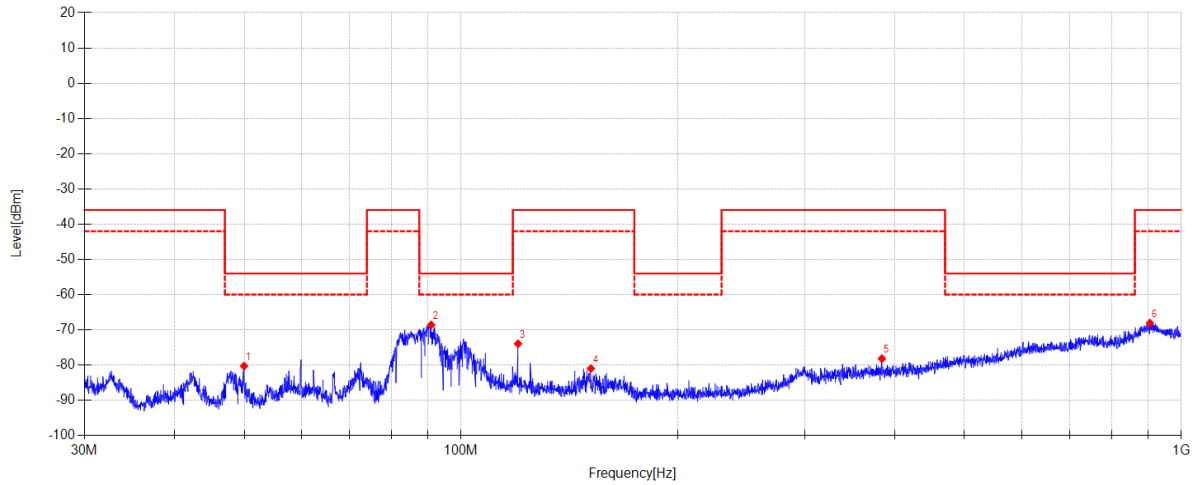
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	49.946	31.47	-110.03	-78.56	-54.00	24.56	PK	Horizontal	ERP
2	59.977	29.80	-112.46	-82.66	-54.00	28.66	PK	Horizontal	ERP
3	72.579	34.47	-117.48	-83.01	-54.00	29.01	PK	Horizontal	ERP
4	118.902	36.26	-116.28	-80.02	-36.00	44.02	PK	Horizontal	ERP
5	149.019	34.63	-118.19	-83.56	-36.00	47.56	PK	Horizontal	ERP
6	640.219	30.65	-103.21	-72.56	-54.00	18.56	PK	Horizontal	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\20		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



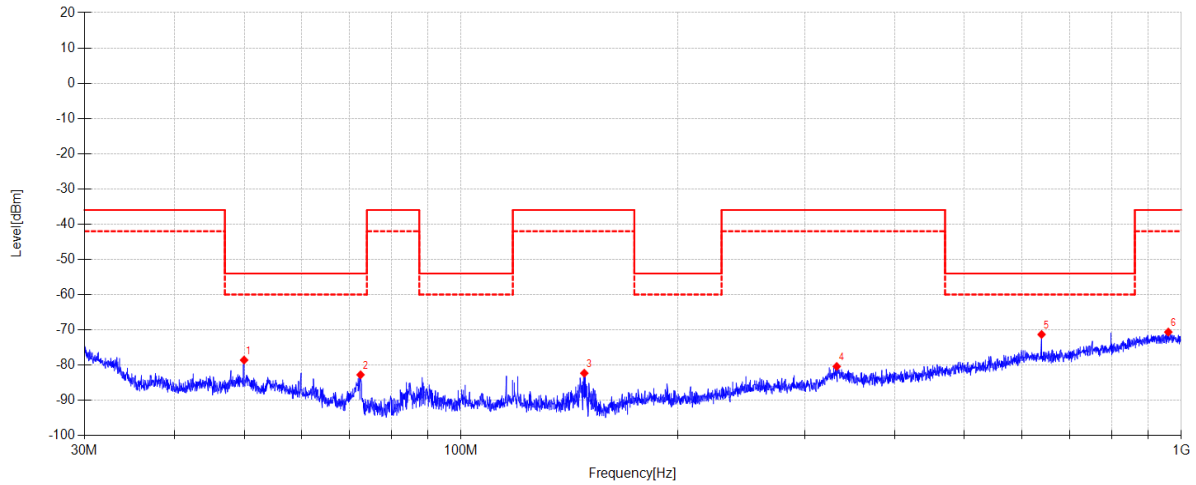
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	49.981	34.56	-114.82	-80.26	-54.00	26.26	PK	Vertical	ERP
2	90.899	43.20	-111.80	-68.60	-54.00	14.60	PK	Vertical	ERP
3	119.991	37.57	-111.51	-73.94	-36.00	37.94	PK	Vertical	ERP
4	151.442	32.65	-113.63	-80.98	-36.00	44.98	PK	Vertical	ERP
5	384.005	28.82	-106.99	-78.17	-36.00	42.17	PK	Vertical	ERP
6	904.595	27.10	-95.17	-68.07	-36.00	32.07	PK	Vertical	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\21		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



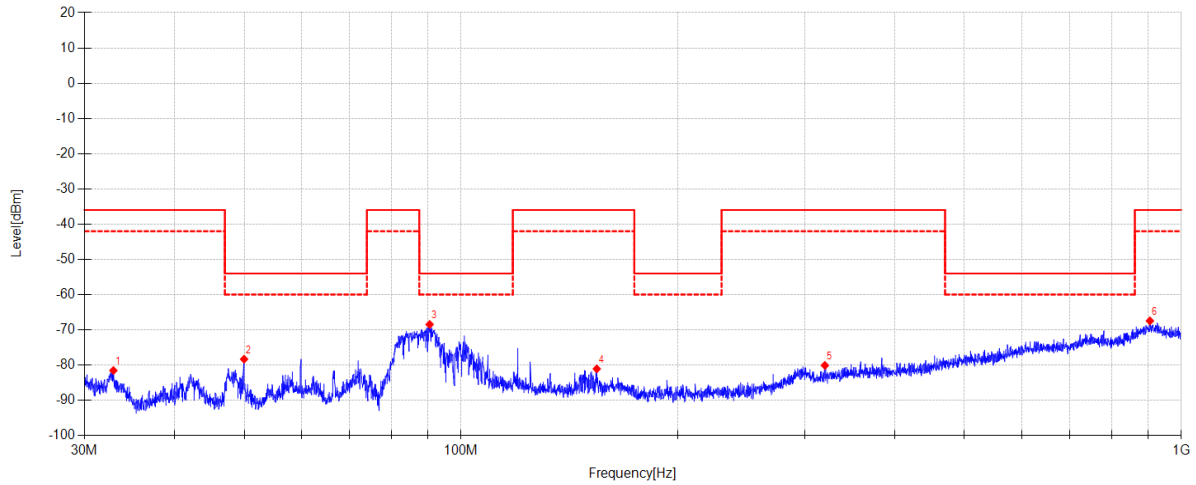
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	49.981	31.45	-110.02	-78.57	-54.00	24.57	PK	Horizontal	ERP
2	72.528	34.74	-117.48	-82.74	-54.00	28.74	PK	Horizontal	ERP
3	148.290	35.84	-118.14	-82.30	-36.00	46.30	PK	Horizontal	ERP
4	332.359	29.45	-109.82	-80.37	-36.00	44.37	PK	Horizontal	ERP
5	639.770	31.91	-103.21	-71.30	-54.00	17.30	PK	Horizontal	ERP
6	959.475	27.02	-97.64	-70.62	-36.00	34.62	PK	Horizontal	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\22		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



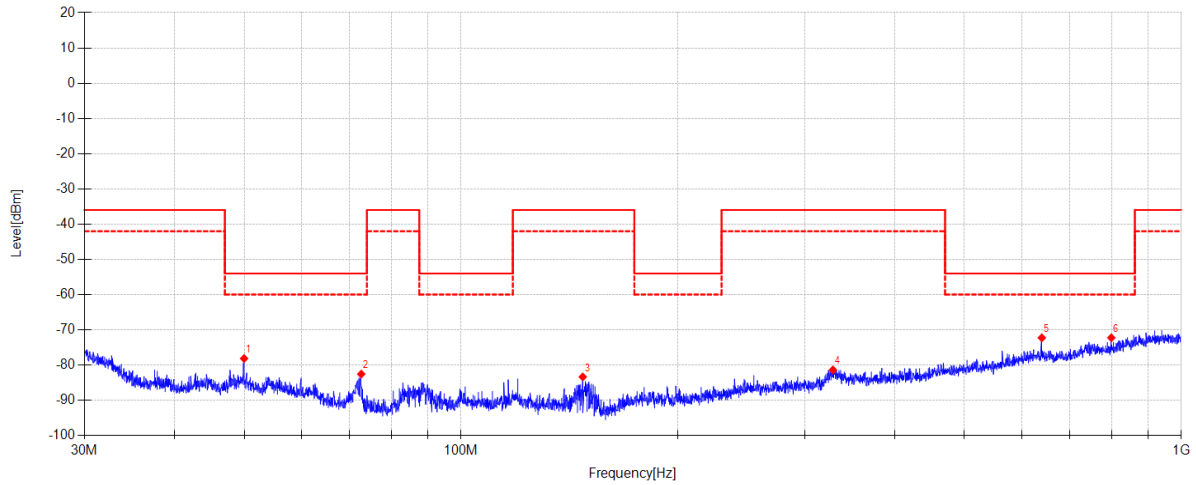
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	32.909	34.87	-116.40	-81.53	-36.00	45.53	PK	Vertical	ERP
2	49.981	36.51	-114.82	-78.31	-54.00	24.31	PK	Vertical	ERP
3	90.454	43.43	-111.89	-68.46	-54.00	14.46	PK	Vertical	ERP
4	154.336	32.57	-113.63	-81.06	-36.00	45.06	PK	Vertical	ERP
5	320.010	28.33	-108.41	-80.08	-36.00	44.08	PK	Vertical	ERP
6	904.595	27.73	-95.17	-67.44	-36.00	31.44	PK	Vertical	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\23		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



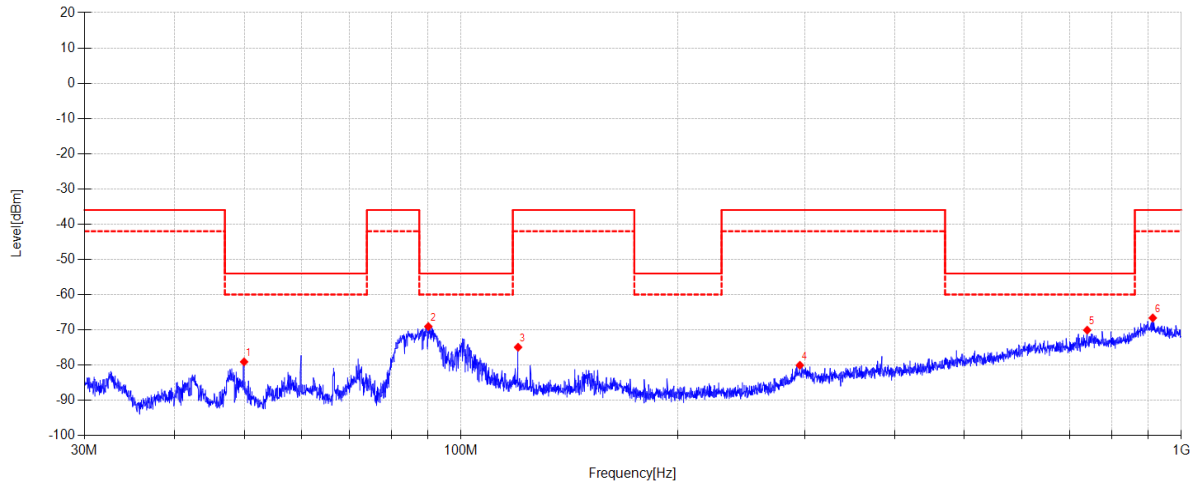
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	49.981	31.89	-110.02	-78.13	-54.00	24.13	PK	Horizontal	ERP
2	72.681	34.93	-117.48	-82.55	-54.00	28.55	PK	Horizontal	ERP
3	147.564	34.75	-118.09	-83.34	-36.00	47.34	PK	Horizontal	ERP
4	328.421	28.56	-109.94	-81.38	-36.00	45.38	PK	Horizontal	ERP
5	640.219	30.96	-103.21	-72.25	-54.00	18.25	PK	Horizontal	ERP
6	799.576	29.61	-101.85	-72.24	-54.00	18.24	PK	Horizontal	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\24		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



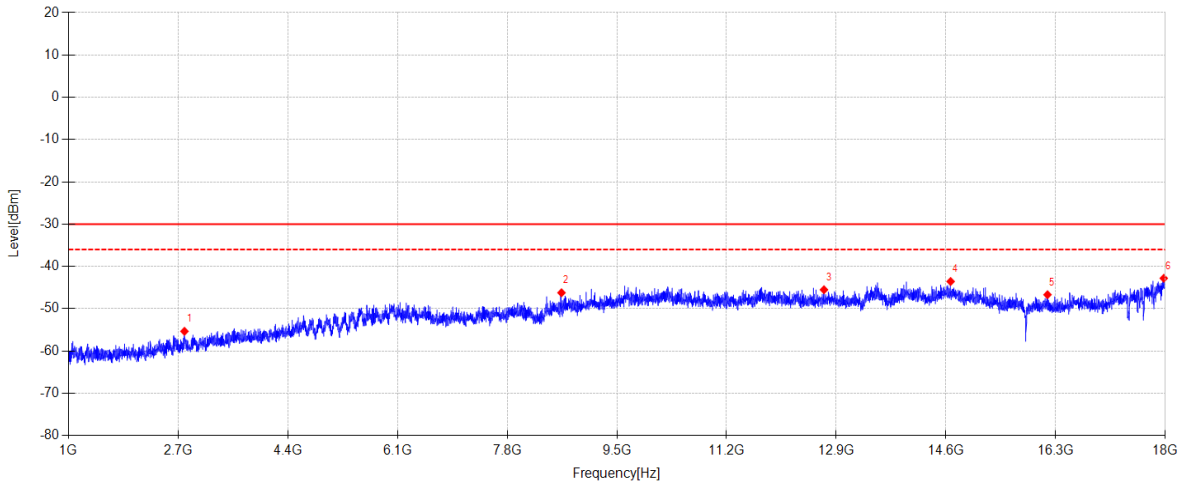
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	49.981	35.75	-114.82	-79.07	-54.00	25.07	PK	Vertical	ERP
2	90.074	42.92	-111.96	-69.04	-54.00	15.04	PK	Vertical	ERP
3	119.991	36.58	-111.51	-74.93	-36.00	38.93	PK	Vertical	ERP
4	295.426	29.38	-109.43	-80.05	-36.00	44.05	PK	Vertical	ERP
5	740.224	29.37	-99.44	-70.07	-54.00	16.07	PK	Vertical	ERP
6	912.879	28.68	-95.29	-66.61	-36.00	30.61	PK	Vertical	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\19		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



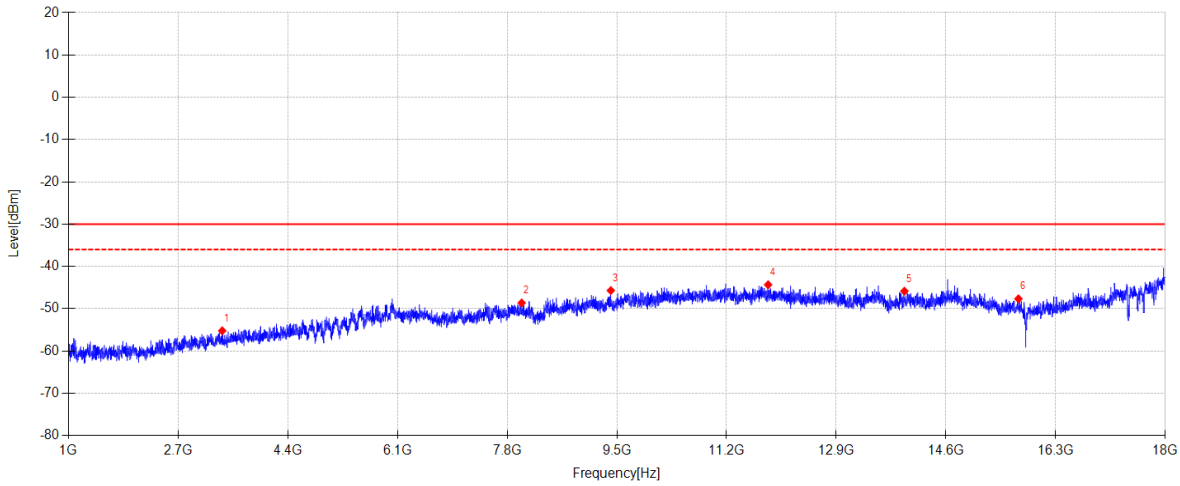
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	2798.600	47.31	-102.65	-55.34	**-30.00**	25.34	PK	Horizontal	EIRP
2	8641.500	43.50	-89.72	-46.22	**-30.00**	16.22	PK	Horizontal	EIRP
3	12709.600	42.20	-87.71	-45.51	**-30.00**	15.51	PK	Horizontal	EIRP
4	14673.100	41.10	-84.66	-43.56	**-30.00**	13.56	PK	Horizontal	EIRP
5	16174.200	40.68	-87.36	-46.68	**-30.00**	16.68	PK	Horizontal	EIRP
6	17976.200	38.66	-81.46	-42.80	**-30.00**	12.80	PK	Horizontal	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\20		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



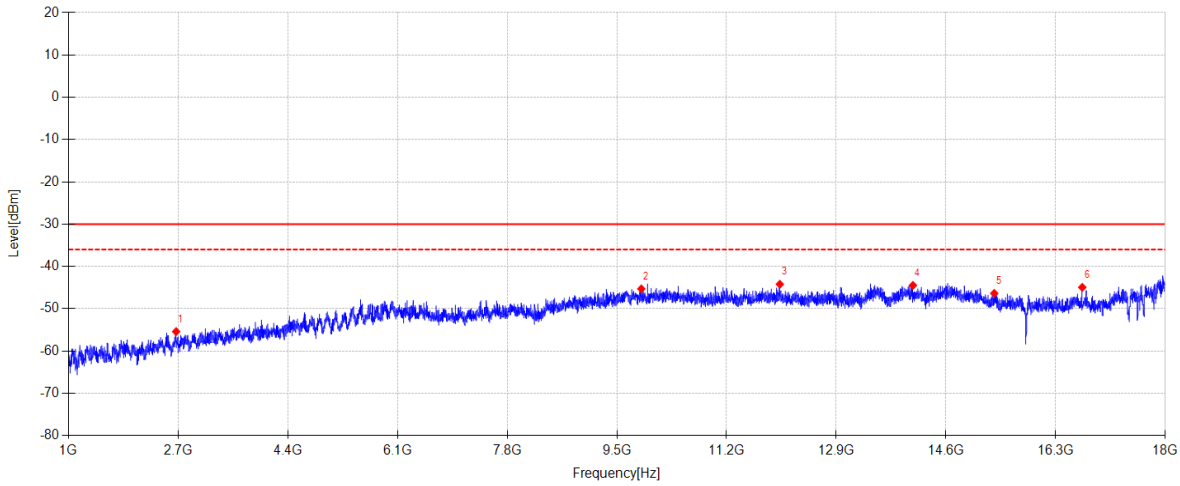
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	3383.400	46.29	-101.50	-55.21	**-30.00**	25.21	PK	Vertical	EIRP
2	8024.400	42.75	-91.37	-48.62	**-30.00**	18.62	PK	Vertical	EIRP
3	9406.500	42.84	-88.53	-45.69	**-30.00**	15.69	PK	Vertical	EIRP
4	11844.300	42.65	-86.98	-44.33	**-30.00**	14.33	PK	Vertical	EIRP
5	13957.400	40.22	-86.06	-45.84	**-30.00**	15.84	PK	Vertical	EIRP
6	15723.700	39.96	-87.61	-47.65	**-30.00**	17.65	PK	Vertical	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\21		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



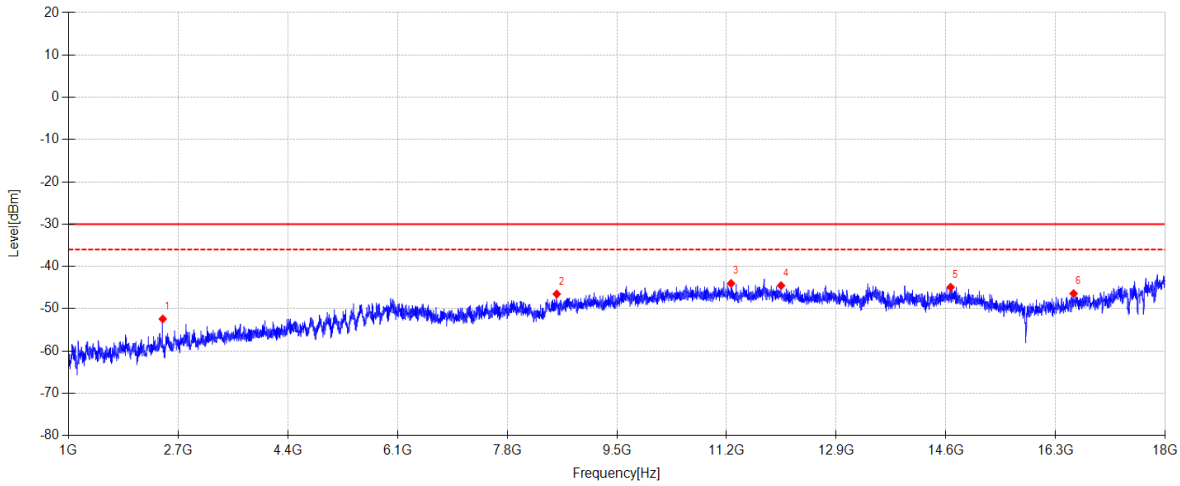
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	2669.400	47.48	-102.88	-55.40	**-30.00**	25.40	PK	Horizontal	EIRP
2	9879.100	42.35	-87.65	-45.30	**-30.00**	15.30	PK	Horizontal	EIRP
3	12026.200	43.42	-87.63	-44.21	**-30.00**	14.21	PK	Horizontal	EIRP
4	14088.300	40.16	-84.64	-44.48	**-30.00**	14.48	PK	Horizontal	EIRP
5	15349.700	39.26	-85.63	-46.37	**-30.00**	16.37	PK	Horizontal	EIRP
6	16713.100	42.26	-87.20	-44.94	**-30.00**	14.94	PK	Horizontal	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\22		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



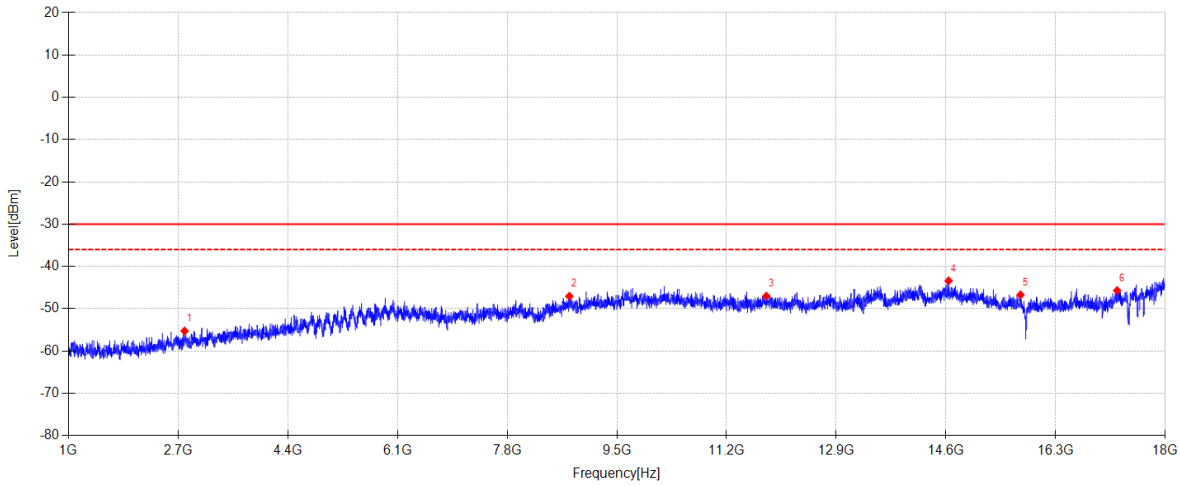
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	2462.000	50.67	-103.09	-52.42	**-30.00**	22.42	PK	Vertical	EIRP
2	8568.400	43.45	-89.97	-46.52	**-30.00**	16.52	PK	Vertical	EIRP
3	11269.700	42.60	-86.61	-44.01	**-30.00**	14.01	PK	Vertical	EIRP
4	12044.900	42.58	-87.11	-44.53	**-30.00**	14.53	PK	Vertical	EIRP
5	14673.100	40.78	-85.69	-44.91	**-30.00**	14.91	PK	Vertical	EIRP
6	16578.800	40.79	-87.21	-46.42	**-30.00**	16.42	PK	Vertical	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\23		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



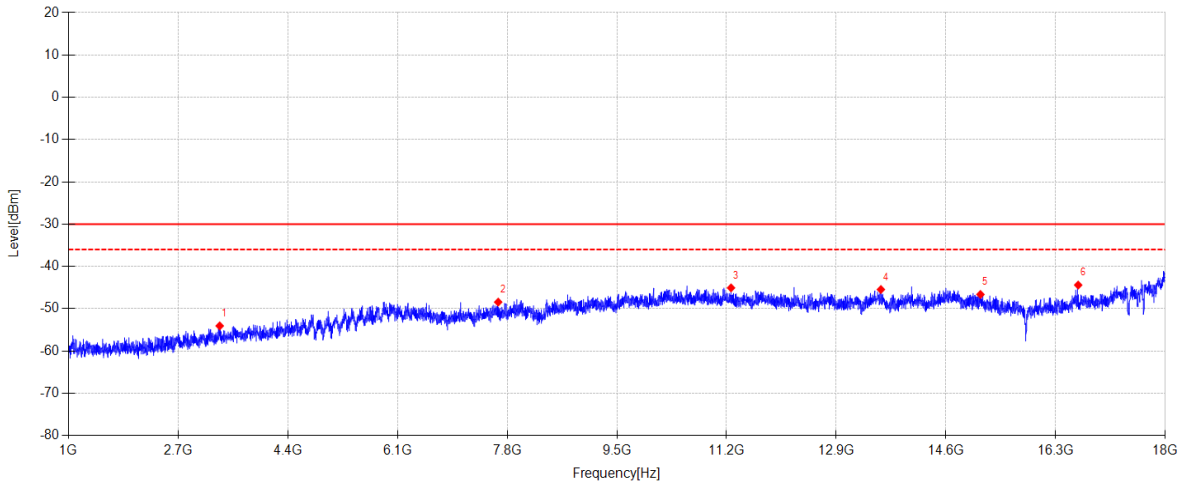
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	2800.300	47.38	-102.64	-55.26	**-30.00**	25.26	PK	Horizontal	EIRP
2	8763.900	42.26	-89.31	-47.05	**-30.00**	17.05	PK	Horizontal	EIRP
3	11817.100	40.64	-87.66	-47.02	**-30.00**	17.02	PK	Horizontal	EIRP
4	14640.800	41.25	-84.66	-43.41	**-30.00**	13.41	PK	Horizontal	EIRP
5	15756.000	40.02	-86.74	-46.72	**-30.00**	16.72	PK	Horizontal	EIRP
6	17253.700	39.93	-85.63	-45.70	**-30.00**	15.70	PK	Horizontal	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz TX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\24		
Memo:	Sample Number:S25011512-001 Power Setting: 0c00		

Test Graph



Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	3344.300	47.51	-101.57	-54.06	**-30.00**	24.06	PK	Vertical	EIRP
2	7660.600	43.99	-92.42	-48.43	**-30.00**	18.43	PK	Vertical	EIRP
3	11269.700	41.54	-86.61	-45.07	**-30.00**	15.07	PK	Vertical	EIRP
4	13591.900	41.18	-86.63	-45.45	**-30.00**	15.45	PK	Vertical	EIRP
5	15135.500	39.32	-85.94	-46.62	**-30.00**	16.62	PK	Vertical	EIRP
6	16650.200	42.66	-87.06	-44.40	**-30.00**	14.40	PK	Vertical	EIRP

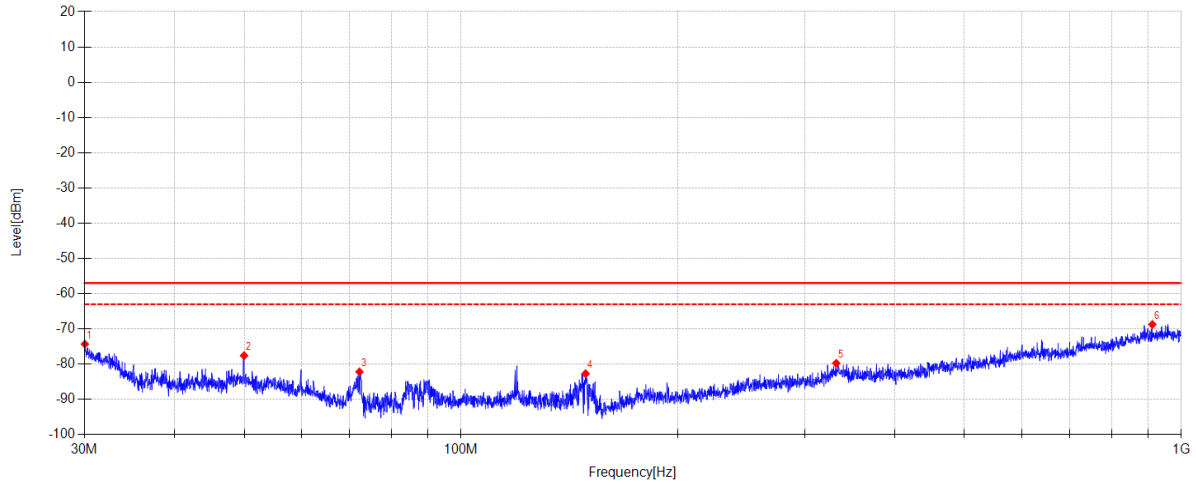
Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

5 Appendix A.5 : Spurious radiations

Note: This testing was carried out on different modulations, but only the worst case was presented in this report. The emissions below 30MHz are too low, so not recored.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\29		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



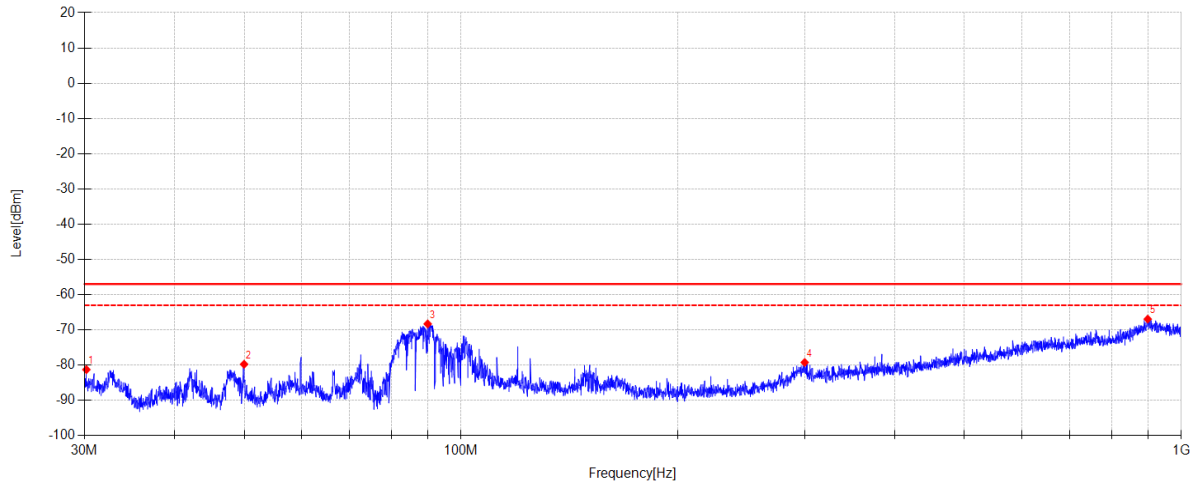
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	30.042	38.07	-112.40	-74.33	-57.00	17.33	PK	Horizontal	ERP
2	49.981	31.58	-109.17	-77.59	-57.00	20.59	PK	Horizontal	ERP
3	72.274	34.52	-116.72	-82.20	-57.00	25.20	PK	Horizontal	ERP
4	148.915	34.65	-117.36	-82.71	-57.00	25.71	PK	Horizontal	ERP
5	331.893	29.09	-108.86	-79.77	-57.00	22.77	PK	Horizontal	ERP
6	911.599	28.64	-97.38	-68.74	-57.00	11.74	PK	Horizontal	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\30		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



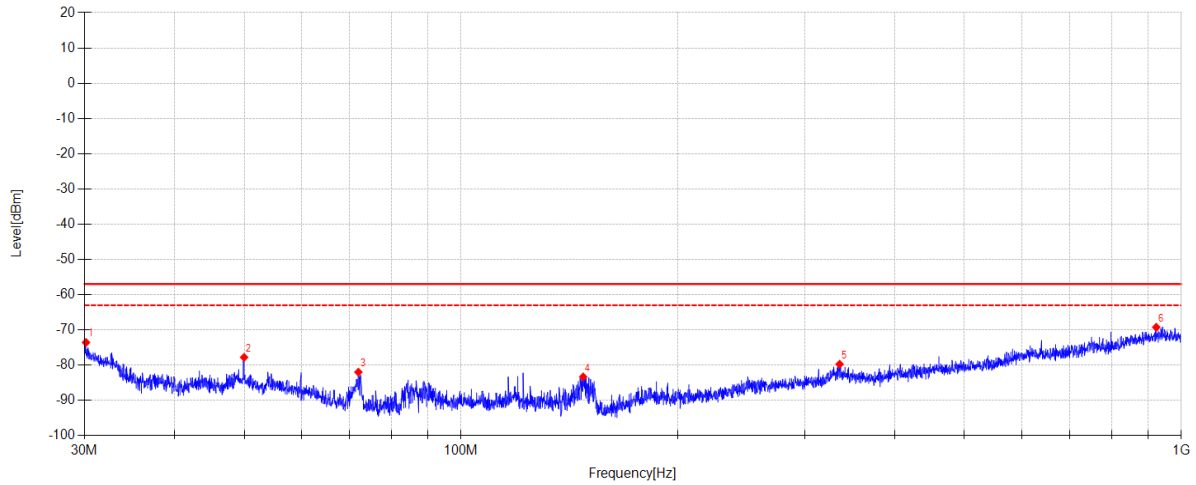
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	30.190	34.67	-115.95	-81.28	-57.00	24.28	PK	Vertical	ERP
2	49.981	34.22	-113.97	-79.75	-57.00	22.75	PK	Vertical	ERP
3	89.885	42.92	-111.23	-68.31	-57.00	11.31	PK	Vertical	ERP
4	300.018	28.98	-108.22	-79.24	-57.00	22.24	PK	Vertical	ERP
5	898.275	27.14	-94.07	-66.93	-57.00	9.93	PK	Vertical	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\27		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



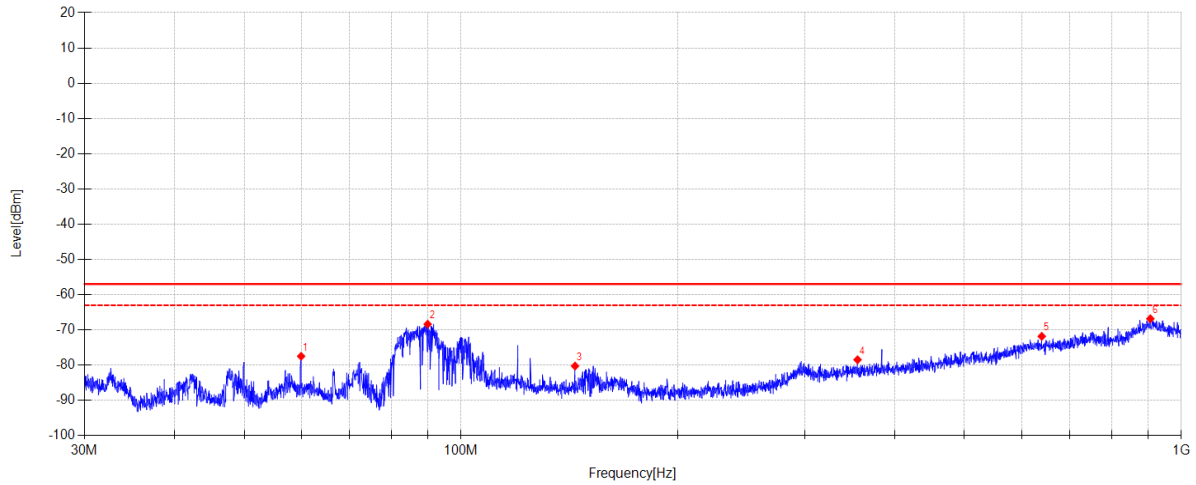
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	30.148	38.80	-112.38	-73.58	-57.00	16.58	PK	Horizontal	ERP
2	49.981	31.38	-109.17	-77.79	-57.00	20.79	PK	Horizontal	ERP
3	72.021	34.73	-116.72	-81.99	-57.00	24.99	PK	Horizontal	ERP
4	147.771	33.94	-117.28	-83.34	-57.00	26.34	PK	Horizontal	ERP
5	335.402	29.00	-108.75	-79.75	-57.00	22.75	PK	Horizontal	ERP
6	923.178	27.80	-97.05	-69.25	-57.00	12.25	PK	Horizontal	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\28		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



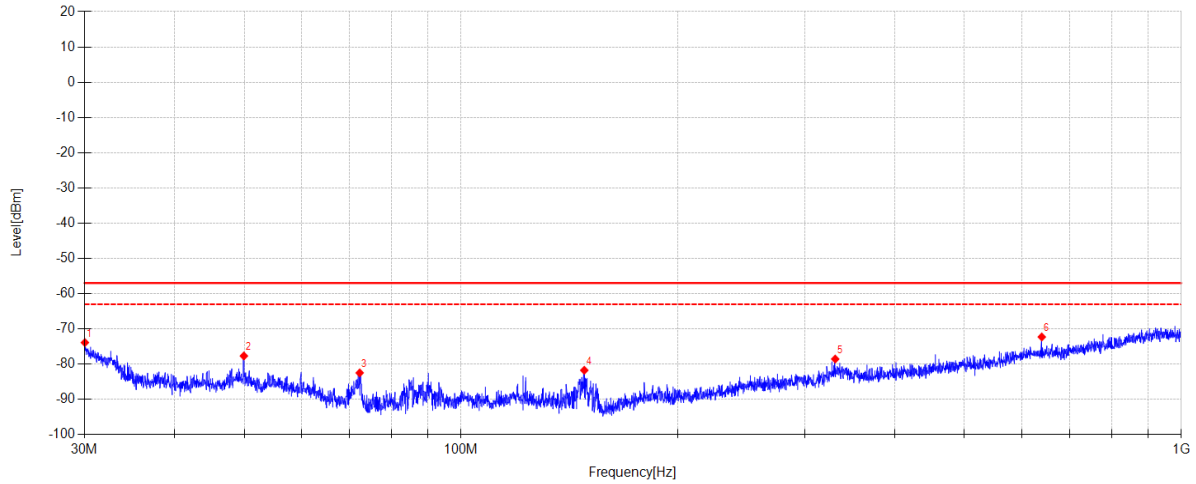
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	59.977	36.45	-113.94	-77.49	-57.00	20.49	PK	Vertical	ERP
2	89.885	42.85	-111.23	-68.38	-57.00	11.38	PK	Vertical	ERP
3	143.986	32.13	-112.38	-80.25	-57.00	23.25	PK	Vertical	ERP
4	355.252	27.76	-106.24	-78.48	-57.00	21.48	PK	Vertical	ERP
5	640.219	27.94	-99.78	-71.84	-57.00	14.84	PK	Vertical	ERP
6	905.865	27.20	-94.04	-66.84	-57.00	9.84	PK	Vertical	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\25		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



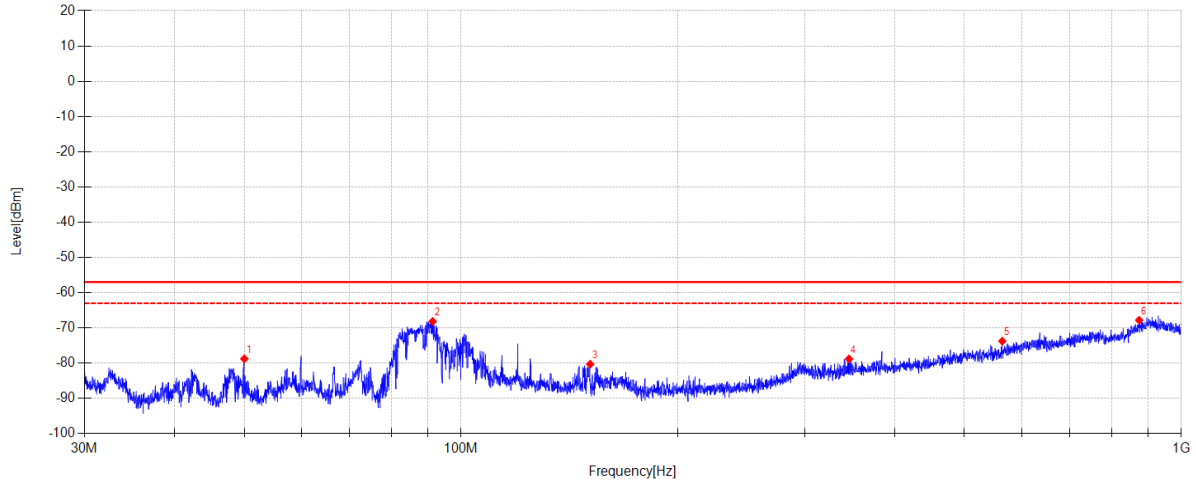
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	30.042	38.52	-112.40	-73.88	-57.00	16.88	PK	Horizontal	ERP
2	49.946	31.50	-109.18	-77.68	-57.00	20.68	PK	Horizontal	ERP
3	72.325	34.24	-116.72	-82.48	-57.00	25.48	PK	Horizontal	ERP
4	148.290	35.57	-117.31	-81.74	-57.00	24.74	PK	Horizontal	ERP
5	330.732	30.34	-108.90	-78.56	-57.00	21.56	PK	Horizontal	ERP
6	640.219	29.92	-102.21	-72.29	-57.00	15.29	PK	Horizontal	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE BELOW1G 5G\26		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



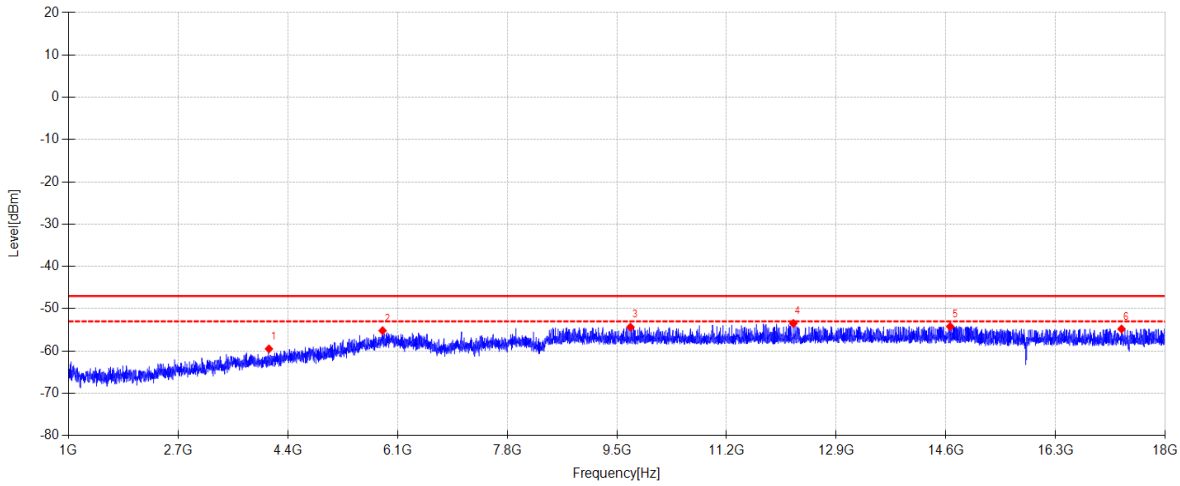
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	50.016	35.18	-113.97	-78.79	-57.00	21.79	PK	Vertical	ERP
2	91.346	42.75	-110.92	-68.17	-57.00	11.17	PK	Vertical	ERP
3	151.124	32.49	-112.80	-80.31	-57.00	23.31	PK	Vertical	ERP
4	345.669	27.65	-106.46	-78.81	-57.00	21.81	PK	Vertical	ERP
5	564.308	28.40	-102.16	-73.76	-57.00	16.76	PK	Vertical	ERP
6	874.044	27.80	-95.62	-67.82	-57.00	10.82	PK	Vertical	ERP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 100 kHz, VBW: 300 kHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\29		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



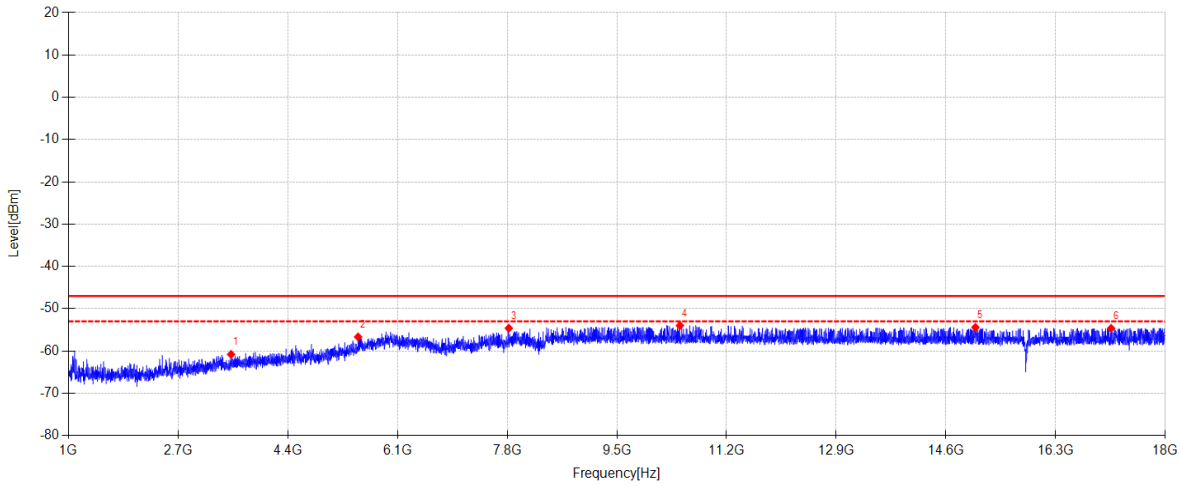
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	4107.600	41.32	-100.81	-59.49	**-47.00**	12.49	PK	Horizontal	EIRP
2	5868.800	39.28	-94.46	-55.18	**-47.00**	8.18	PK	Horizontal	EIRP
3	9710.800	34.55	-88.89	-54.34	**-47.00**	7.34	PK	Horizontal	EIRP
4	12235.300	35.21	-88.69	-53.48	**-47.00**	6.48	PK	Horizontal	EIRP
5	14666.300	31.62	-85.82	-54.20	**-47.00**	7.20	PK	Horizontal	EIRP
6	17321.700	31.93	-86.72	-54.79	**-47.00**	7.79	PK	Horizontal	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5745MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\30		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



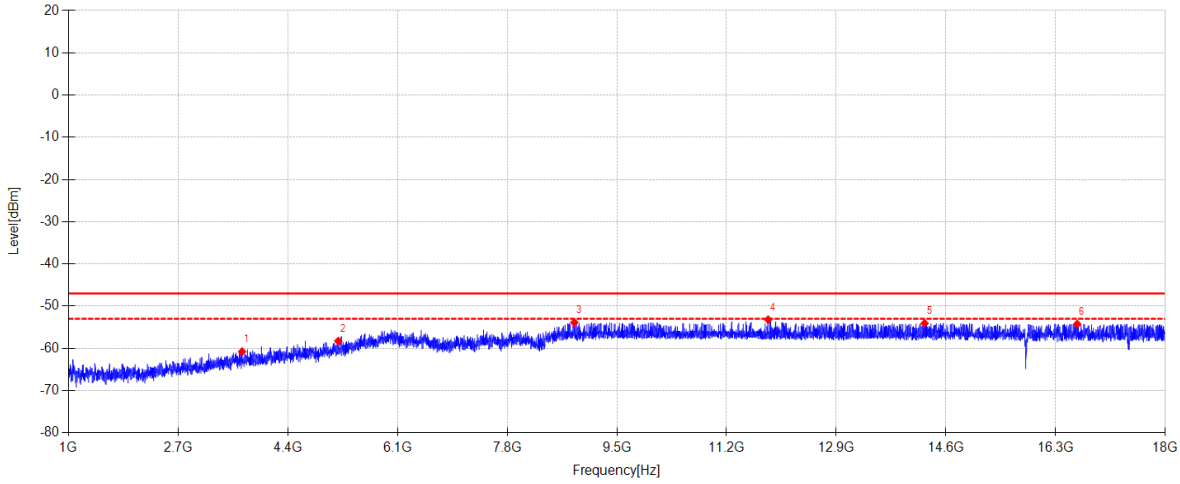
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	3521.100	41.38	-102.18	-60.80	**-47.00**	13.80	PK	Vertical	EIRP
2	5489.700	39.67	-96.34	-56.67	**-47.00**	9.67	PK	Vertical	EIRP
3	7825.500	38.61	-93.22	-54.61	**-47.00**	7.61	PK	Vertical	EIRP
4	10477.500	34.34	-88.31	-53.97	**-47.00**	6.97	PK	Vertical	EIRP
5	15057.300	32.52	-86.93	-54.41	**-47.00**	7.41	PK	Vertical	EIRP
6	17160.200	32.32	-86.95	-54.63	**-47.00**	7.63	PK	Vertical	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\27		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



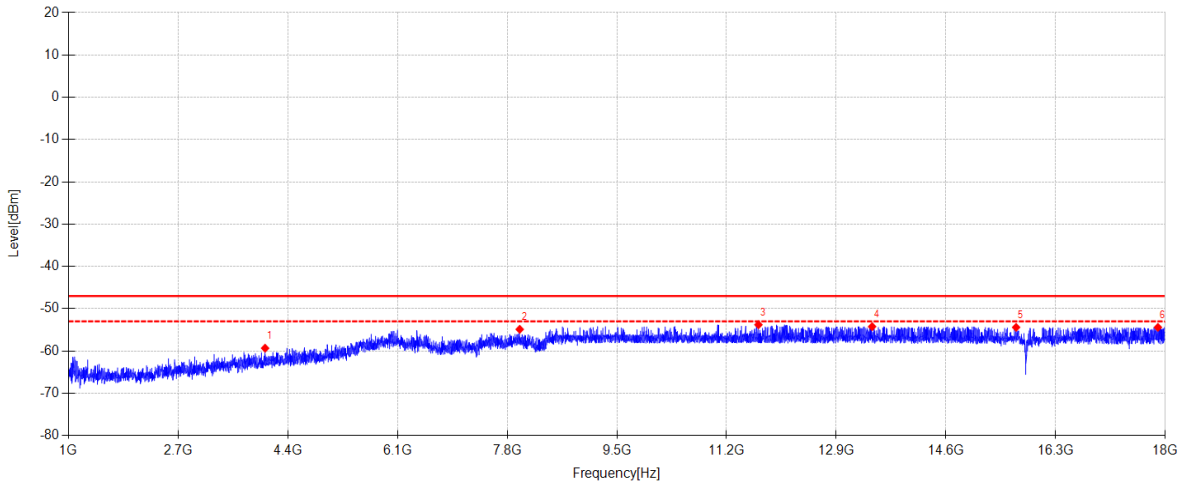
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	3691.100	41.04	-101.82	-60.78	**-47.00**	13.78	PK	Horizontal	EIRP
2	5182.000	39.14	-97.42	-58.28	**-47.00**	11.28	PK	Horizontal	EIRP
3	8840.400	36.35	-90.21	-53.86	**-47.00**	6.86	PK	Horizontal	EIRP
4	11844.300	35.48	-88.68	-53.20	**-47.00**	6.20	PK	Horizontal	EIRP
5	14270.200	31.69	-85.76	-54.07	**-47.00**	7.07	PK	Horizontal	EIRP
6	16634.900	34.52	-88.77	-54.25	**-47.00**	7.25	PK	Horizontal	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5785MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\28		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



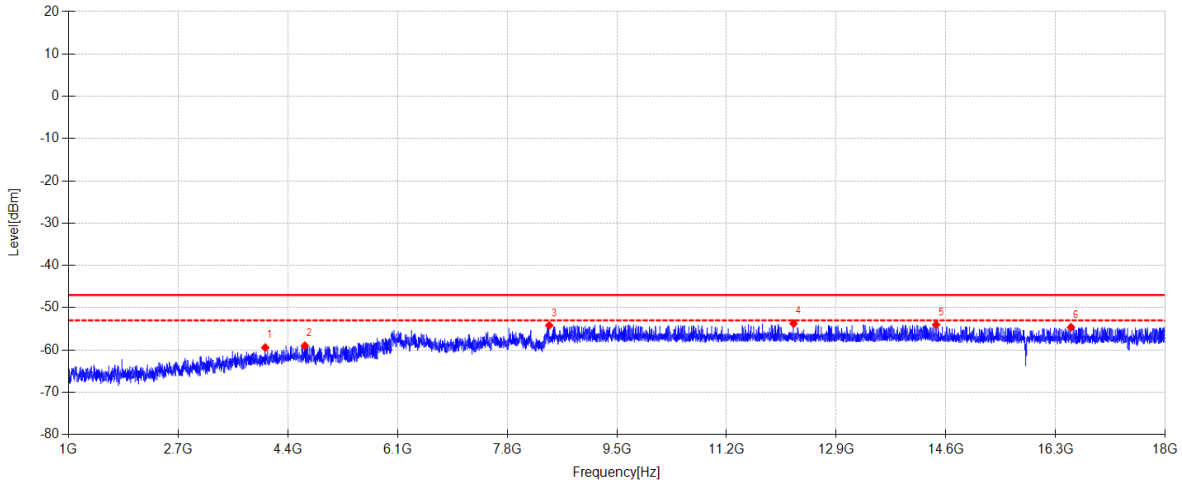
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	4048.100	41.71	-101.04	-59.33	**-47.00**	12.33	PK	Vertical	EIRP
2	7993.800	37.85	-92.72	-54.87	**-47.00**	7.87	PK	Vertical	EIRP
3	11694.700	34.13	-87.92	-53.79	**-47.00**	6.79	PK	Vertical	EIRP
4	13455.900	33.70	-87.93	-54.23	**-47.00**	7.23	PK	Vertical	EIRP
5	15688.000	34.40	-88.80	-54.40	**-47.00**	7.40	PK	Vertical	EIRP
6	17886.100	27.71	-82.11	-54.40	**-47.00**	7.40	PK	Vertical	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\25		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



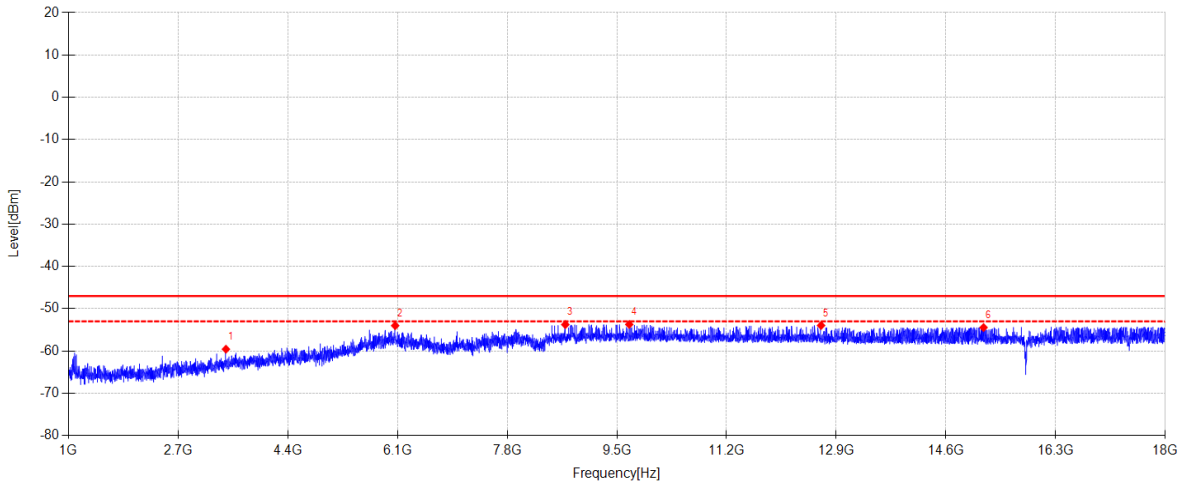
Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	4049.800	41.55	-100.98	-59.43	**-47.00**	12.43	PK	Horizontal	EIRP
2	4663.500	40.20	-99.19	-58.99	**-47.00**	11.99	PK	Horizontal	EIRP
3	8451.100	37.37	-91.55	-54.18	**-47.00**	7.18	PK	Horizontal	EIRP
4	12238.700	34.94	-88.69	-53.75	**-47.00**	6.75	PK	Horizontal	EIRP
5	14448.700	31.80	-85.80	-54.00	**-47.00**	7.00	PK	Horizontal	EIRP
6	16538.000	34.17	-88.78	-54.61	**-47.00**	7.61	PK	Horizontal	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Test Date:	2025-01-24	**Tested By**:	Zhong Nan
EUT:	Table Wireless Speaker	**Model Number**:	EDF100092
Test Mode:	N20 5825MHz RX Mode	**Power Supply**:	AC 230V/50Hz
Condition:	Temp:23.0°C;Humi:42.7%	**Test Site**:	DDT 3# Chamber
File Path:	d:\ts\2024 report data\Q25011512-1E\CE ABOVE1G 5G\26		
Memo:	Sample Number:S25011512-001 Power Setting:NA		

Test Graph



Data List

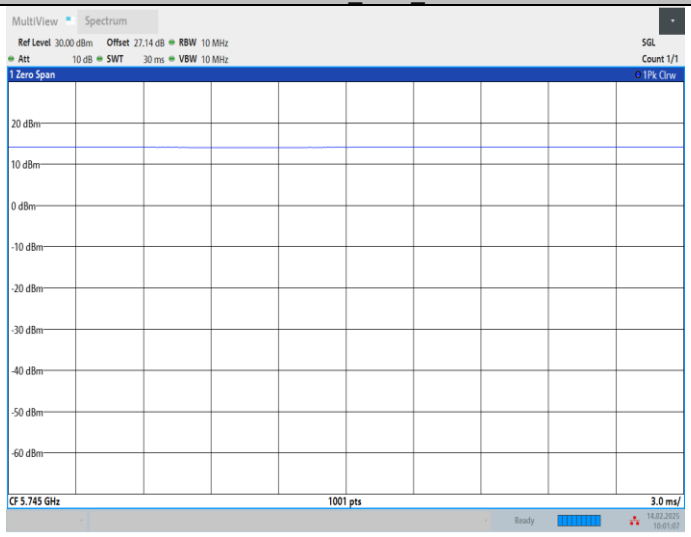
NO.	Freq. [MHz]	Reading [dBµV/m]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity	Type
1	3441.200	42.79	-102.35	-59.56	**-47.00**	12.56	PK	Vertical	EIRP
2	6064.300	39.98	-93.97	-53.99	**-47.00**	6.99	PK	Vertical	EIRP
3	8701.000	37.06	-90.81	-53.75	**-47.00**	6.75	PK	Vertical	EIRP
4	9692.100	35.64	-89.35	-53.71	**-47.00**	6.71	PK	Vertical	EIRP
5	12665.400	34.51	-88.47	-53.96	**-47.00**	6.96	PK	Vertical	EIRP
6	15183.100	32.85	-87.30	-54.45	**-47.00**	7.45	PK	Vertical	EIRP

Note:
1. Level = Reading + Factor.
2. Factor = Antenna Factor + Cable Loss + Filter Factor - Preamp Gain + Site Loss Factor - 107.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

6 Appendix A.6 : Duty cycle

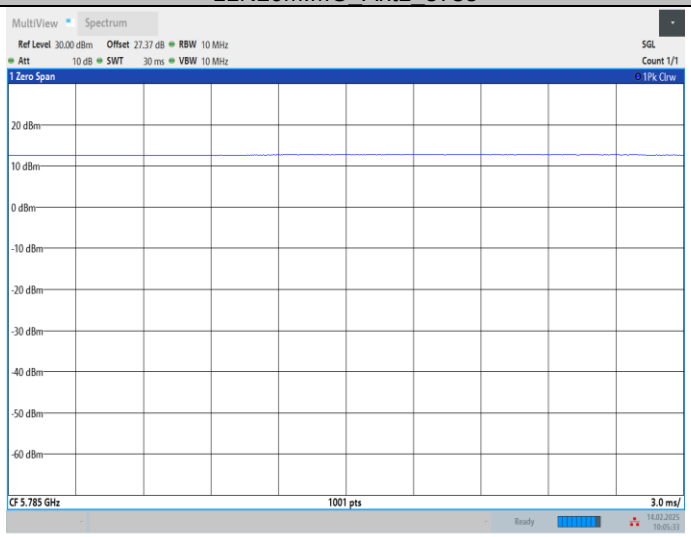
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11N20MIMO	Ant1	5745	30.00	30.00	100.00
		5785	30.00	30.00	100.00
		5825	30.00	30.00	100.00

11N20MIMO_Ant1_5745



10:01:08 14.02.2025

11N20MIMO_Ant1_5785



10:05:33 14.02.2025

11N20MIMO_Ant1_5825
