TEST REPORT

Product Name : Bottle speaker
Model Number : SL553, 47413
FCC ID : 2BCGV0012

Prepared for	:	NINGBO CSTAR IMPRINT E-COMMERCE CO.,LTD
Address	:	B46,BUILDING B,INDUSTRIAL BLOCK,QIAOTOUHU STREET,NINGHAI COUNTY,NINGBO CITY,ZHEJIANG PROVINCE
Prepared by	:	EMTEK (DONGGUAN) CO., LTD.
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Report Number	:	EDG2404240037E00102R
Date(s) of Tests	:	Apr 24, 2024 to May 09, 2024
Date of issue	:	May 10, 2024

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1. TEST RESULT CERTIFICATION

Applicant	:	NINGBO CSTAR IMPRINT E-COMMERCE CO.,LTD
Address	:	B46,BUILDING B,INDUSTRIAL BLOCK,QIAOTOUHU STREET,NINGHAI COUNTY,NINGBO CITY,ZHEJIANG PROVINCE
Manufacturer	:	NINGBO CSTAR IMPRINT E-COMMERCE CO.,LTD
Address	:	B46,BUILDING B,INDUSTRIAL BLOCK,QIAOTOUHU STREET,NINGHAI COUNTY,NINGBO CITY,ZHEJIANG PROVINCE
EUT	:	Bottle speaker
Model Name	:	SL553, 47413
Trademark	:	N/A

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
§ 15.247(i), § 2.1093	**PASS**

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : Apr 24, 2024 to May 09, 2024

Prepared by : Warren Deng /Editor

Reviewer : Tim Dong /Supervisor

Approve & Authorized Signer : Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2404240037E00102R	/	Original Report

2. EUT Specification

Characteristics	Description
Product:	Bottle speaker
Model Number:	SL553, 47413 All products are identical except the model number and color.Here we selected SL553 for all the test.
Sample:	1#
Data Rate:	1Mbps for GFSK modulation 2Mbps for π/4-DQPSK modulation 3Mbps for 8DPSK modulation
Modulation:	GFSK, π/4-DQPSK, 8DPSK
Operating Frequency Range(s) :	2402-2480MHz
Number of Channels:	79 channels
Transmit Power Max:	2.57 dBm(0.001807 W)
Antenna Gain:	-0.58 dBi
Power supply:	DC 5V from USB DC 3.7V from battery
Evaluation applied:	☐ MPE Evaluation ☒ SAR Evaluation

3. Test Requirement

SAR Evaluation

According to 447498 D01 V06, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,[24] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[25]
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to quality for TCB approval.
One antenna is available for the EUT. The minimum separation distance is 5mm.

4. Measurement Result

Antenna gain: -0.58 dBi

Transmit Frequency (MHz)	Mode	Measured Power (dBm)	Tune upPower (dBm)	Max tune up power (dBm)	Calculation Result	1-g SAR
2402	GFSK	1.20	1±1	2	0.4913	3
2441	GFSK	1.32	1±1	2	0.4952	3
2480	GFSK	1.11	1±1	2	0.4992	3
2402	Π/4-DQPSK	2.07	2±1	3	0.6185	3
2441	Π/4-DQPSK	1.83	2±1	3	0.6235	3
2480	Π/4-DQPSK	1.73	2±1	3	0.6284	3
2402	8DPSK	2.57	2±1	3	0.6185	3
2441	8DPSK	2.18	2±1	3	0.6235	3
2480	8DPSK	2.01	2±1	3	0.6284	3

According to KDB 447498 D01 V06, no stand-alone required for BT antenna, and no simultaneous SAR measurement is required.

*** End of Report ***