

TEST REPORT

Product Name : Bluetooth Karaoke
Model Number : DP-555.EEv26, X-555 Y (X and Y could be single or multiple digits by any alphabets and punctuation marks denoting different year version, cartoon brands, buyers and colors)
FCC ID : EMO555B

Prepared for : SDI Technologies Inc.
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Report Number : ENS2510090179W00903R
Date of sample receipt : Oct 09, 2025
Date(s) of Tests : Oct 09, 2025 to Nov 05, 2025
Date of issue : Nov 06, 2025

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1. TEST RESULT CERTIFICATION

Applicant : SDI Technologies Inc.
Address : 1299, Main Street, Rahway, NJ 07065, U.S.A.
Manufacturer : eKids, LLC. / KIDDESIGNS INC.
Address : 1299, Main Street, Rahway, NJ 07065, U.S.A.
Factory : DongGuan Synst Electronics Co., Ltd.
Address : No. 20, Fudong Road, Houjie Town, Dong-Guang City, Guangdong Province, China
EUT : Bluetooth Karaoke
Model Name : DP-555.EEv26, X-555 Y (X and Y could be single or multiple digits by any alphabets and punctuation marks denoting different year version, cartoon brands, buyers and colors)
Trademark : eKids / iHome

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1091	PASS

The above equipment was tested by EMTEK (SHENZHEN) 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 (2020) 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), § 2.1091.
The test results of this report relate only to the tested sample identified in this report

Date of Test : Oct 09, 2025 to Nov 05, 2025

Prepared by : 
Una Yu /Editor

Reviewer : 
Joe Xia/Supervisor

Approve & Authorized Signer : 
Lisa Wang/Manager



Modified History

Version	Report No.	Revision Date	Summary
	ENS2510090179W00903R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Bluetooth Karaoke
Model Number:	DP-555.EEv26, X-555 Y (X and Y could be single or multiple digits by any alphabets and punctuation marks denoting different year version, cartoon brands, buyers and colors) (Note: These models are the same, except for the model names, year version, cartoon brands, buyers and colors; DP-555.EEv26 was selected for full test.)
Sample:	1#
Device Type:	BT&BLE
Data Rate:	1Mbps for GFSK modulation 2Mbps for $\pi/4$ -DQPSK modulation 3Mbps for 8DPSK modulation 1Mbps for GFSK modulation 2Mbps for GFSK modulation
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Operating Frequency Range(s) :	2402-2480MHz
Number of Channels:	BT: 79 channels BLE: 40 channels
Transmit Power Max:	BT: 1.51 dBm(0.001416W) BLE: 8.62 dBm(0.007278W)
Antenna Type:	PCB Antenna
Antenna Gain:	1.68 dBi
Power supply:	DC 3.7V from battery DC 5V from USB
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement:

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm ²)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = Power density in mW/cm²

P_{out} =output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

R =20, distance between observation point and center of the radiator in cm

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

Antenna gain: 1.68 dBi

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2402	GFSK	0.76	0±1	1	1.259	1.68	1.47	0.0004	1
2441		0.54	0±1	1	1.259	1.68	1.47	0.0004	1
2480		0.28	0±1	1	1.259	1.68	1.47	0.0004	1
2402	π/4-DQPSK	1.43	1±1	2	1.585	1.68	1.47	0.0005	1
2441		1.27	1±1	2	1.585	1.68	1.47	0.0005	1
2480		0.85	1±1	2	1.585	1.68	1.47	0.0005	1
2402	8-DPSK	1.51	1±1	2	1.585	1.68	1.47	0.0005	1
2441		1.40	1±1	2	1.585	1.68	1.47	0.0005	1
2480		0.98	1±1	2	1.585	1.68	1.47	0.0005	1
2402	GFSK (1M)	8.56	8±1	9	7.943	1.68	1.47	0.0023	1
2440		8.34	8±1	9	7.943	1.68	1.47	0.0023	1
2480		7.76	7±1	8	6.310	1.68	1.47	0.0018	1
2402	GFSK (2M)	8.60	8±1	9	7.943	1.68	1.47	0.0023	1
2440		8.62	8±1	9	7.943	1.68	1.47	0.0023	1
2480		8.03	8±1	9	7.943	1.68	1.47	0.0023	1

According to KDB 447498, no stand-alone required for WIFI/BLE antenna, and no simultaneous SAR measurement is required.

*** End of Report ***