

Delta Enterprise Inc. d/b/a Delta Children's Products LLC

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

Model:

25031

REPORT NUMBER:

210102698SHA-002

ISSUE DATE:

Mar 23, 2021

DOCUMENT CONTROL NUMBER:

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Applicant: Delta Enterprise Inc. d/b/a Delta Children's Products LLC
114 W 26th St NYC NY 10001 USA

Manufacturer: Delta Enterprise Inc. d/b/a Delta Children's Products LLC
114 W 26th St NYC NY 10001 USA

Manufacturing site: Worldfaith Baby Products (Jiashan) Co.,Ltd.
No.3, Dujuan Rd, Dayun Economic Development Zone, Jiashan
County, Zhejiang Province, P.R.China Post Code: 314113

FCC ID: 2AY6Q-25031BT

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06
FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:

Project Engineer
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REVIEWED BY:

Reviewer
Daniel Zhao

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Revision History

Report No.	Version	Description	Issued Date
210102698SHA-002	Rev. 01	Initial issue of report	Mar 23, 2021

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Bluetooth Music box
Type/Model:	25031
Description of EUT:	The EUT is music box with Bluetooth LE function. Data rate 1Mbps and 2Mbps were tested and the worst data is listed in the report.
Rating:	DC 5.8V, 1A
Category of EUT:	Class B
EUT type:	<input type="checkbox"/> Table top <input checked="" type="checkbox"/> Floor standing
Software Version:	/
Hardware Version:	/
Sample received date:	Feb 2, 2021
Date of test:	Feb 2~Mar 10, 2021

1.2 Technical Specification

Frequency Range:	2402-2480MHz
Support Standards:	Bluetooth LE 5.0
Type of Modulation:	GFSK
Channel Number:	40
Data Rate:	1Mbps, 2Mbps
Channel Separation:	2MHz
Antenna Information:	2.5dBi, PCB antenna

1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L0139
	FCC Accredited Lab Designation Number: CN1175
	IC Registration Lab CAB identifier.: CN0051
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

2 MPE Assessment

Test result: Pass

2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave power density S_{eq} (W/m ²)
0-1 Hz	-	$3,2 \times 10^4$	4×10^4	-
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10 000	4 000/f	5 000/f	-
0,025-0,8 kHz	250/f	4/f	5/f	-
0,8-3 kHz	250/f	5	6,25	-
3-150 kHz	87	5	6,25	-
0,15-1 MHz	87	0,73/f	0,92/f	-
1-10 MHz	$87/f^{1/2}$	0,73/f	0,92/f	-
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	f/200
2-300 GHz	61	0,16	0,20	10

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0**

2.2 Assessment Results

Power density (S) is calculated according to the formula:

$$S = PG / (4\pi R^2)$$

Where S = power density in mW/cm²

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 210102698SHA-001:

The maximum radiated power = 12.62dBm = 18.28 mW;

Here R is chosen to be 20cm,

$$S = PG / (4\pi R^2) = 18.28 / (4 * 3.14 * 20 * 20) = 0.0036\text{mW/cm}^2 < 1 \text{ mW/cm}^2$$

Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.

***** END *****