

# TEST REPORT

**Product Name** : Light and Sound Therapy with Schedule Modes  
iZBT50, iZBT50X(X could be single or multiple  
**Model Number** : digits by any alphabets denote different cabinet  
color)  
**FCC ID** : EMOIZBT50A

**Prepared for** : SDI Technologies Inc.  
**Address** : 1299, Main Street, Rahway, NJ 07065, U.S.A.

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**Report Number** : EDG2207040259E00402R  
**Date(s) of Tests** : July 4, 2022 to July 21, 2022  
**Date of issue** : July 21, 2022

## Table of Contents

1. TEST RESULT CERTIFICATION .....	3
2. EUT SPECIFICATION .....	5
3. TEST REQUIREMENT: .....	6
RF EXPOSURE EVALUATION .....	6
FRIIS TRANSMISSION FORMULA: $P_D = (P_{OUT} * G) / (4 * \pi * R^2)$ .....	6
4. MEASUREMENT RESULT .....	7



# 1. TEST RESULT CERTIFICATION

Applicant : SDI Technologies Inc.  
 Address : 1299, Main Street, Rahway, NJ 07065, U.S.A.  
 Manufacturer : SDI Technologies Inc.  
 Address : 1299, Main Street, Rahway, NJ 07065, U.S.A.  
 Factory : ARTS DIGITAL TECHNOLOGY (HK) LTD  
 Address : Room 1704, 17/F, Fo Tan Industrial Centre, 26-28 Au Pui Wan Street, Fo Tan, Shatin, NT, Hong Kong  
 EUT : Light and Sound Therapy with Schedule Modes  
 Model Name : iZBT50, iZBT50X(X could be single or multiple digits by any alphabets denote different cabinet color)  
 Trademark : iHome

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 1.1310: §1.1307(b)	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 1.1310: §1.1307(b).

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

Date of Test : July 4, 2022 to July 21, 2022

Prepared by :   
 Xia Yang /Editor

Reviewer :   
 Tim Dong/ Supervisor

Approve & Authorized Signer :    
 Sam Lv / Manager

## Modified History

Version	Report No.	Revision Date	Summary
	EDG2207040259E00402R	/	Original Report



## 2. EUT Specification

Characteristics	Description
<b>Product:</b>	Light and Sound Therapy with Schedule Modes
<b>Model Number:</b>	iZBT50, iZBT50X(X could be single or multiple digits by any alphabets denote different cabinet color) All products are the same, only the model number and color of appearance are different Here we selected iZBT50 for all the test
<b>Sample:</b>	1#
<b>Device Type:</b>	Bluetooth V5.1
<b>Data Rate:</b>	1Mbps for GFSK modulation 2Mbps for $\pi/4$ -DQPSK modulation 3Mbps for 8DPSK modulation
<b>Modulation:</b>	GFSK, $\pi/4$ -DQPSK, 8DPSK
<b>Operating Frequency Range(s) :</b>	2402-2480MHz
<b>Number of Channels:</b>	79 channels
<b>Transmit Power Max:</b>	8.12 dBm(0.00334W)
<b>Antenna Gain:</b>	0 dBi
<b>Power supply:</b>	AC 100-240V 50/60Hz, 5V 1.5A
<b>Evaluation applied:</b>	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> 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 <sup>2</sup> )	Average Time
<b>(A) Limits for Occupational/Control Exposures</b>				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
<b>(B) Limits for General Population/Uncontrol Exposures</b>				
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/cm<sup>2</sup>

$P_{out}$ =output power to antenna in mW

$G$ = Numeric gain of the antenna relative to isotropic antenna

$\pi$ =3.1416

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

$P_d$  the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

## 4. Measurement Result

Antenna gain:0 dBi

Mode	Frequency (MHz)	Output Power (dBm)	Target Power W/tolerance (dBm)	Max tune up power tolerance (dBm)	Max tune up power tolerance (mW)	Power Density at R=20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Verdict
GFSK	2402	7.14	7±1	8	6.31	0.001255	1.0	PASS
	2441	6.5	6±1	7	5.01	0.000997	1.0	PASS
	2480	5.39	5±1	6	3.98	0.000792	1.0	PASS
pi/4-DQPSK	2402	7.74	7±1	8	6.31	0.001255	1.0	PASS
	2441	7.2	7±1	8	6.31	0.001255	1.0	PASS
	2480	6.1	6±1	7	5.01	0.000997	1.0	PASS
8-DPSK	2402	8.12	8±1	9	7.94	0.001580	1.0	PASS
	2441	7.61	7±1	8	6.31	0.001255	1.0	PASS
	2480	6.5	6±1	7	5.01	0.000997	1.0	PASS

\*\*\* End of Report \*\*\*