



Report No.: SZEM190601575502

Page: 1 of 7

SAR Evaluation Report

Application No.: SZEM1906015755CR **Applicant:** SDI Technologies Inc.

Address of Applicant: 1299 Main St. Rahway New Jersey 07065 United States

Manufacturer: SDI Technologies Inc.

Address of Manufacturer: 1299, Main Street, Rahway, NJ 07065, U.S.A **Factory:** Jadestar Electronics (Shenzhen) Co. Ltd

Address of Factory: Block 4, A area 4th Industrial zone Yu He Road, Gong He Community, Sha

Jing Town, Bao An District,

Equipment Under Test (EUT):

EUT Name: Bluetooth Dual Alarm FM Clock Radio with USB Charging

Model No.: iBT210

Trade mark: iHome

FCC ID: EMOIBT210N

Standards: 47 CFR Part 1.1307

47 CFR Part 2.1093

KDB447498D01 General RF Exposure Guidance v06

Date of Receipt: 2019-06-28

Date of Test: 2019-07-04 to 2019-07-16

Date of Issue: 2019-07-18

Test Result : PASS*

Keny Xu EMC Laboratory Manager



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^{*} In the configuration tested, the EUT complied with the standards specified above.



Report No.: SZEM190601575502

Page: 2 of 7

2 Version

	Revision Record				
Version	Chapter	Date	Modifier	Remark	
01		2019-07-18		Original	

Authorized for issue by:		
	Damon Su	
	Damon Su /Project Engineer	
	EvicFu	
	Eric Fu /Reviewer	



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Report No.: SZEM190601575502

Page: 3 of 7

3 Contents

			Page
1	COVE	ER PAGE	1
2	VERS	SION	2
3	CONT	TENTS	3
4	GENE	ERAL INFORMATION	4
	4.1 (GENERAL DESCRIPTION OF EUT	4
	4.2	TEST LOCATION	5
	4.3	TEST FACILITY	5
	4.4	DEVIATION FROM STANDARDS	6
	4.5 A	ABNORMALITIES FROM STANDARD CONDITIONS	6
	4.6	OTHER INFORMATION REQUESTED BY THE CUSTOMER	6
5	SAR E	EVALUATION	7
	5.1 F	RF Exposure Compliance Requirement	7
	5.1.1	Standard Requirement	7
	5.1.2	Limits	
	5.1.3	EUT RF Exposure	7



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Report No.: SZEM190601575502

Page: 4 of 7

4 General Information

4.1 General Description of EUT

Power supply:	Clock backup: DC 3V(2*AA battery)
	Input: DC 5V 2A.
	Adapter model: S012B0502000U
	Adapter parameters: Input AC100-240V 50/60Hz, 400mA max, Output DC5V, 2A
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	5.0
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, π/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi

Remark

iBT210 has different style no. represented as iBT210x (where x = a - z, denotes color of the cabinet) while iBT210 is black in color.



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Report No.: SZEM190601575502

Page: 5 of 7

4.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

No tests were sub-contracted.

4.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

· A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC -Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.



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Report No.: SZEM190601575502

Page: 6 of 7

4.4 Deviation from Standards

None.

4.5 Abnormalities from Standard Conditions

None

4.6 Other Information Requested by the Customer

None.



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Report No.: SZEM190601575502

Page: 7 of 7

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

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)] \cdot [$\sqrt{f}(GHz)$] \leq 3.0 for 1-g SAR and \leq 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is \leq 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 is applied to determine SAR test exclusion

5.1.3 EUT RF Exposure

The Max. power (including tune-up tolerance) is 4.94 dBm on the lowest channel 2.402 GHz (*) 4.94 dBm logarithmic terms convert to numeric result is nearly 3.12 mW

According to the formula. calculate the test exclusion thresholds:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] \cdot [Vf(GHz)]

General RF Exposure = (3.12 mW / 5 mm) $x \sqrt{2.402} \text{ GHz} = 0.97$ (1)

SAR requirement:

 $S = 3.0 \tag{2}$

(1) < (2)

So the SAR report is not required.

(*) Max. power refer to Report No.:SZEM190601575501

- End of the Report -



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