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Report No.: SZEM151200764102

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SAR Evaluation Report

Application No: SZEM1512007641CR
Applicant: TOP PROMOTIONAL PRODUCTS CO.,LIMITED
Manufacturer: TOP PROMOTIONAL PRODUCTS CO.,LIMITED
Factory: SHENZHEN SANJIA LIXIN TECHNOLOGY COMPANY
Product Name: INDEED ALL IN 1 SPEAKER
Model No.(EUT): NO
Trade Mark: INDEED
FCC ID: 2AHEX-INDEED
Standards: 47 CFR Part 1.1307 (2015)
47 CFR Part 2.1093 (2015)
KDB447498D01 General RF Exposure Guidance v06
Date of Receipt: 2015-12-14
Date of Test: 2015-12-14 to 2015-12-18
Date of Issue: 2016-03-03

Test Result :	PASS*
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* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang
EMC Laboratory Manager

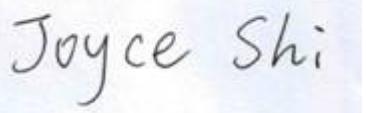
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2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2016-03-03		Original

Authorized for issue by:			
			2015-12-30
Tested By		(Benson Wang) /Project Engineer	Date
			2016-03-03
Prepared By		(Joyce Shi) /Clerk	Date
			2016-03-03
Checked By		(Eric Fu) /Reviewer	Date

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4 General Information

4.1 Client Information

Applicant:	TOP PROMOTIONAL PRODUCTS CO.,LIMITED
Address of Applicant:	RM 1107,BLOCK C1, GALAXY CENTURY BUILDING, CAITIAN ROAD, SHENZHEN,CHINA
Manufacturer:	TOP PROMOTIONAL PRODUCTS CO.,LIMITED
Address of Manufacturer:	RM 1107,BLOCK C1, GALAXY CENTURY BUILDING, CAITIAN ROAD, SHENZHEN,CHINA
Factory:	SHENZHEN SANJIA LIXIN TECHNOLOGY COMPANY
Address of Factory:	6TH FLOOR, BUILDING A, XIRONG INDUSTRY AREA, XIXIANG, BAOAN, SHENZHEN, CHINA

4.2 General Description of EUT

Product Name:	INDEED ALL IN 1 SPEAKER
Model No.:	NO
Trade Mark:	INDEED
Frequency Range:	2402MHz to 2480MHz
Bluetooth Version	V2.1+EDR
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, π/4DQPSK
Number of Channels:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Sample Type:	Portable production
Antenna Type:	Integral
Antenna Gain:	2dBi
Battery:	Lithium-ion battery:3.7V20000mAh(charge by pc USB port)

4.3 Test Location

All tests were performed at:

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

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.

4.4 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 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

- **FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

- **Industry Canada (IC)**

The 3m Semi-anechoic chambers and the 10m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-2, 4620C-3.

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

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:

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

$f(\text{GHz})$ 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 ≤ 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 Conducted Peak Output Power is 1.96dBm in highest channel(2.480GHz);

The best case gain of the antenna is 2dBi.

$$\text{EIRP} = 1.96\text{dBm} + 2\text{dBi} = 3.96\text{dBm}$$

3.96dBm logarithmic terms convert to numeric result is nearly 2.49mW

According to the formula. calculate the EIRP test result:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\text{General RF Exposure} = (2.49\text{mW} / 5 \text{ mm}) \times \sqrt{2.480\text{GHz}} = 0.78 \quad ①$$

SAR requirement:

$$S = 3.0 \quad ② ;$$

$$① < ②.$$

So the SAR report is not required.