

RF Exposure Evaluation Report

Product Name : SOUNDBOKS

Model No. : SOUNDBOKS

FCC ID : 2AJAASB3

Applicant : Dongguan Meiloon Acoustic Equipment Co., Ltd.

Address : 77, Yuanlin Road, Feng Huang Gang Ind Estate, Tangxia Town, 523727
Dongguan City, Guangdong Province, China

Date of Receipt : Apr. 03, 2019

Date of Declaration : Aug. 19, 2019

Report No. : 1940049R-SAUSP03V00

Report Version : V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Issued Date: Aug. 19, 2019

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Applicant	Dongguan Meiloon Acoustic Equipment Co., Ltd.
Address	77, Yuanlin Road, Feng Huang Gang Ind Estate, Tangxia Town, 523727 Dongguan City, Guangdong Province, China
Manufacturer	SOUNDBOKS Inc
Model No.	SOUNDBOKS
FCC ID.	2AJAASB3
Trade Name	SOUNDBOKS
Applicable Standard	FCC 47 CFR 1.1310
Test Result	Complied

Documented By :



(Adm. Specialist / Vita Wang)

Tested By :



(Senior Engineer / Wen Lee)

Approved By :



(Director / Vincent Lin)

GENERAL INFORMATION

1.1. EUT Description

Product Name	SOUNDBOKS
Model No.	SOUNDBOKS
Trade Name	SOUNDBOKS
FCC ID	2AJAASB3
Frequency Range	2403.5-2477.3MHz
Number of Channels	49
Type of Modulation	FSK
Antenna Type	Printed PCB inverted-F Antenna
Channel Control	Auto
Antenna Gain	Refer to the table "Antenna List"
Contains FCC ID	A8TBM64S1

1.2. Antenna List :

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Microchip (BT)	BM62/64	Print on PCB Antenna	1.927dBi for 2.4GHz
2	Eleven Engineering (Wireless 2.4G)	RF1810057	Printed PCB inverted-F Antenna	3.77 dBi for 2.4GHz

2. RF Exposure Evaluation

2.1. Limits

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 (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	30
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $Pd = (Pout * G) / (4 * \pi * R^2)$

Where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0

2.2. Test Result of RF Exposure Evaluation

Product : SOUNDBOKS
 Test Item : RF Exposure Evaluation
 Test Site : N/A

Wireless 2.4G -Peak Gain: 3.77 dBi

Band	Frequency (MHz)	Conducted maximum Peak Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)	Pass/Fail
2.4G	2403.5-2477.3	12.74	18.79	0.0089	1	Pass

Note: The Maximum conducted output power is refer to report No.: 1940049R-RFUSP01V00,

BT Peak Gain: 1.927dBi

Band	Frequency (MHz)	Conducted maximum Peak Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)	Pass/Fail
2.4G	2402-2480	16.27	42.364	0.0131	1	Pass

Note: The Maximum conducted output power is refer to report No.: 5004195 001 from the TUV LAB.

2.3. Calculations for Multi-Transmitter

Mode	Exposure Calculations (mW/cm ²)	Result (mW/cm ²)	Limit (mW/cm ²)	Pass/Fail
Wireless 2.4G	0.0089	0.022	1	Pass
BT	0.0131			