RF Exposure Evaluation Declaration

FCC ID:	2AKG6-STS-BLS01
APPLICANT:	SoundT Studios LLC
Application Type:	Certification
Product:	Scooter Bluetooth Speaker
Model No.:	STS-BLS01
FCC Classification:	FCC Part 15 Spread Spectrum Transmitter(DSS)
FCC Rule Part(s):	FCC CFR 47 §2.1091
Test Date:	November 10 ~ November 26, 2016

Reviewed By : (Robin Wu)

Approved By : (Marlin Chen)

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2009. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
1611RSU03402	Rev. 01	Initial report	11-29-2016	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	Scooter Bluetooth Speaker
Model No.	STS-BLS01
Bluetooth Specification	
Bluetooth Frequency	2402~2480MHz
Bluetooth Version	V2.1+EDR
Type of modulation	FHSS
Data Rate	1Mbps(GFSK), 2Mbps(Pi/4 DQPSK), 3Mbps (8DPSK)
Antenna Type	PCB Antenna
Antenna Gain	1.59dBi

1.2. Antenna Description

Antenna Type	Frequency Band (MHz)	Manufacturer	Max Peak Gain (dBi)
PCB Antenna	2402~2480	LSB	1.59

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	6
1500-100,000	--	--	1	30

Formula as follows:

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where
Pd = power density in mW/cm^2
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

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

2.2. Test Result of RF Exposure Evaluation

Product	Scooter Bluetooth Speaker
Test Item	RF Exposure Evaluation

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 2.0dBi for Wi-Fi band and 2.0dBi for GSM band in logarithm scale.

For Bluetooth v2.1+EDR:

Test Mode	Frequency Band (MHz)	Maximum Average Output Power (dBm)	Power Density at r = 20 cm (mW/cm^2)	FCC Limit (mW/cm^2)
Bluetooth v2.1+EDR	2402 ~ 2480	6.18	0.0012	1

CONCULISON:

Therefore, the Max Power Density at r (20 cm) = 0.0012mW/cm^2 < 1mW/cm^2.

So the EUT complies with the FCC requirement.

The End