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Report No.: 2109RSU056-U4 Report Version: V01 Issue Date: 01-14-2022

RF Exposure Evaluation Declaration

FCC ID: 2APLN-SSB

Applicant: Seura Inc

Application Type: Certification

Product: Soundbar

Model No.: SSB-1, SSB-2

Brand Name: Seura

FCC Classification: Digital Transmission System (DTS)

Test Procedure(s): KDB 447498 D01v06

Reviewed By:			
	Kevin Guo	ilac-MRA	
Approved By:		The state of the s	ACCREDITED
	Robin Wu	"hilalalala	TESTING LABORATORY CERTIFICATE #3628.01

The test results relate only to the samples tested.

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

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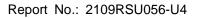
Revision History

Report No.	Version	Description	Issue Date	Note
2109RSU056-U4	Rev. 01	Initial Report	01-14-2022	Valid



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1. General Information

1.1. Applicant

Seura, Inc

1230 Ontario Road, Green Bay, Wisconsin 54311, USA

1.2. Manufacturer

Hansong (Nanjing) Technology Ltd.

8th Kangping Road, Jiangning Economy and Technology Development Zone, Nanjing, 211106, China.

1.3. Testing Facility

\boxtimes	Test Site – MRT Suzhou Laboratory						
	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China						
	Laboratory Location (Suzhou - SIP)						
	4b Building, Liand	do U Valley, No.200	Xingpu Rd., Shengpu	ı Town, Suzhou Indu	strial Park, China		
	Laboratory Accre	editations					
	A2LA: 3628.01		CNAS	i: L10551			
	FCC: CN1166 ISED: CN0001						
	VCCI:	□R-20025	□G-20034	□C-20020	□T-20020		
	VCCI.	□R-20141	□G-20134	□C-20103	□T-20104		
	Test Site - MRT	Shenzhen Laborat	ory				
	Laboratory Loca	tion (Shenzhen)					
	1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China						
Laboratory Accreditations							
	A2LA: 3628.02	2 CNAS: L10551					
	FCC: CN1284		ISED:	CN0105			
	Test Site – MRT Taiwan Laboratory						
	Laboratory Location (Taiwan)						
	No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)						
	Laboratory Accreditations						
	TAF: L3261-1907	25					
	FCC: 291082, TW	/3261	ISED:	TW3261			



1.4. Product Information

Product Name	Soundbar
Model No.	SSB-1, SSB-2
Brand Name	Seura
Bluetooth Specification	V5.0 Dual mode
Antenna Information	Refer to section 1.5
Power Supply	AC 120V/60Hz

Remark:

- The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.
- Differences between models is only the size, the size of SSB-1 is 960mm, SSB-2 is 1450mm, all the PCBA are the same, so only SSB-2 was selected for all tests.

1.5. Radio Specification

O	0.400 0.400MI			
Operating Frequency	2402~2480MHz			
Channel Number	Bluetooth BR/EDR: 79			
Channel Number	Bluetooth LE: 40			
Type of modulation	GFSK, Pi/4 DQPSK, 8DPSK			
Data Rate	1Mbps, 2Mbps, 3Mbps			
Antenna Type	PCB Antenna			
Antenna Gain	1.14dBi			





2. RF Exposure Evaluation

2.1. Test 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 Electric Field		Magnetic Field	Power Density	Average Time		
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(Minutes)		
	(A) Limits fo	r Occupational/ Contro	l 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		

f= Frequency in MHz

Calculation 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

Pd is the limit of MPE, 1mW/cm². 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

Product	Soundbar
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to clause 1.5.

	Test Mode	Frequency Band	Conducted	Antenna	Maximum	Compliance	Power	Limit of
		(MHz)	Power	Gain	EIRP	Distance	Density	Power
			(dBm)	(dBi)	(dBm)	(cm)	(mW/cm ²)	Density
								(mW/cm ²)
Ī	Bluetooth	2402 ~ 2480	-2.46	1.14	-1.32	20.00	0.0001	1

CONCLUSION:

The max Power Density at R (20 cm) = 0.0001mW/cm² < 1mW/cm².

So the compliance distance is 20cm for device installed without any other radio equipment.



Appendix A - EUT Photograph

Refer to "2109RSU056-UE" file.

The End