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Report No.: 1805RSU042-U2 Report Version: V01 Issue Date: 06-15-2018

RF Exposure Evaluation Declaration

FCC ID: 2APLNCL11

APPLICANT: SEURA INC

Application Type: Certification

Product: Seura Clock

Model No.: CL.2

Brand Name: Seura

FCC Classification: Digital Transmission System (DTS)

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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
1801RSU028-U2	Rev. 01	Initial report	06-15-2018	Valid

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1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	Seura Clock		
Model No.	CL.2		
Brand Name	Seura		
Transmitting Frequency	10.525GHz		
Modulation	CW		
Components			
Adapter	M/N: RHD10W120050		
	INPUT: 100-240V ~ 50/60Hz, 1.5A		
	OUTPUT: 12Vdc, 0.5 A		

1.2. Description of Available Antennas

Antenna Type	Frequency Band	T _X	Maximum Peak
	(GHz)	Paths	Antenna Gain
			(dBi)
PCB Antenna	10.525	1	8

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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	Electric Field	Magnetic Field	Power Density	Average Time	
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(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	

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.

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2.2. Test Result of RF Exposure Evaluation

Product	Seura Clock
Test Item	RF Exposure Evaluation

Test Mode	Field strength of	Maximum EIRP	Power Density at	Limit
	fundamental	(dBm)	R = 20 cm	(mW/cm ²)
	(dBuV/m)		(mW/cm ²)	
10.525GHz	102.7	7.5	0.0011	1

Note: EIRP (dBm) = Field strength of fundamental (dBuV/m) - 95.2(dB)

CONCULISON:

The max Power Density at R (20 cm) = 0.0011mW/cm² < 1 mW/cm² for 10.525GHz.

Therefore, the Min Safety Distance is 20cm.

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