



RF Exposure Evaluation Declaration

Product Name : Computer BOX

Model No. : ESY00I4

FCC ID : RBWESY00I4

Applicant : Elo Touch Solutions, Inc

Address : 670 N. McCarthy Blvd., Suite 100,
Milpitas, CA 95035, USA.

Date of Receipt : Apr. 09, 2021

Issued Date : May. 18, 2021

Report No. : 2140225R-RF-US-P20V01

Report Version : V1.0

The test results presented in this report relate only to the object tested.

The measurement result is considered in conformance with the requirement if it is within the prescribed limit,
It is not necessary to account the uncertainty associated with the measurement result.

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Test Report Certification

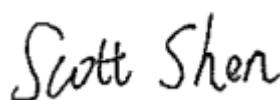
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Product Name : Computer BOX
Applicant : Elo Touch Solutions, Inc
Address : 670 N. McCarthy Blvd., Suite 100, Milpitas, CA 95035,
USA.
Manufacturer : Elo Touch Solutions, Inc
Address : 670 N. McCarthy Blvd., Suite 100, Milpitas, CA 95035,
USA.
Model No. : ESY00I4
Brand : Elo
FCC ID : RBWESY00I4
Applicable Standard : KDB 447498D01V06
FCC Part1.1310
Test Result : Complied
Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou,
215006, Jiangsu, China
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FCC Designation Number: CN1199

Documented By :



(Project Engineer: Scott Shen)

Approved By :



(Supervisor: Jack Zhang)

1. RF Exposure Evaluation

1.1.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

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

P_d is the limit of MPE, 1 mW/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.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product	:	Computer BOX
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

Antenna Information:

BLUETOOTH:

Antenna model / type number .. :	N/A			
Antenna serial number	N/A			
Antenna Delivery	☒	1TX + 1RX		
	☐	2TX + 2RX		
	☐	Others:.....		
Antenna technology	☒	SISO		
	☐	MIMO	☐	CDD
			☐	Beam-forming
Antenna Type	☒	External	☒	Dipole
			☐	Sectorized
	☐	Internal	☐	PIFA
			☐	PCB
			☐	Dipole
			☐	Others:.....
Antenna Gain	2 dBi			

WLAN 2.4GHz:

Antenna model / type number .. :		N/A	
Antenna serial number		N/A	
Antenna Delivery		☒	1TX + 1RX
		☒	2TX + 2RX
		☐	Others:.....
Antenna technology		☒	SISO
		☒	MIMO
		☒	CDD
Antenna Type		☒	External
		☒	Dipole
		☐	Sectorized
		☐	PIFA
		☐	PCB
		☐	Metal Antenna
		☐	Others:.....
SISO	Antenna 1 Gain	2 dBi	
	Antenna 2 Gain.....	2 dBi	
CDD		2 dBi for Power; 5 dBi for PSD	

WLAN 5GHz:

Antenna model / type number .. :		N/A	
Antenna serial number		N/A	
Antenna Delivery	☒	1TX + 1RX	
	☒	2TX + 2RX	
	☐	Others:.....	
Antenna technology	☒	SISO	
	☒	MIMO	☒ CDD ☐ Beam-forming
	☐		
Antenna Type	☒	External	☒ Dipole ☐ Sectorized
	☐		Internal
	☐		
	☐		
	☐		
	☐		
	☐		
SISO	Antenna 1 Gain	3 dBi	
	Antenna 2 Gain.....	3 dBi	
CDD		3 dBi for Power; 6 dBi for PSD	

Power Density

Standalone modes:

Test Mode	Frequency Band (MHz)	Maximum EIRP (dBm)	Power Density at R = 20 cm (mW/cm ²)	Power Density Limit at R = 25 cm (mW/cm ²)
Bluetooth	2400 ~ 2483.5	11.32	0.003	1.0
802.11b/g/n	2400 ~ 2483.5	17.89	0.012	1.0
802.11a/n/ac	5150 ~ 5350	19.39	0.017	1.0
	5470 ~ 5725			
	5725 ~ 5850			

Simultaneous transmission:

Wireless Configuration	Maximum EIRP (dBm)		Limit of Power Density S (mW/cm ²)	Power Density S at R = 20 cm (mW/cm ²)		Rate	Limit
	BT	WIFI		BT	WIFI		
BT +2.4G WIFI	11.32	17.89	1.0	0.003	0.012	0.015	1
BT + 5G WIFI	11.32	19.39	1.0	0.003	0.017	0.02	1

The EUT support simultaneously transmit with BT + 2.4G WIFI and BT +5G WIFI.

The worst combination should be shown in the report. The simultaneously safety distance is 20cm for installed for Computer BOX without any other radio equipment.

_____ The End _____