

RF EXPOSURE REPORT



Applicant: silex technology, Inc.
2-3-1 Hikaridai, Seika-cho, Soraku-gun, Kyoto 619-0237,
Japan

Product Name: SX-PCEAC2

Brand Name: silex technology, Inc.

Model No.: SX-PCEAC2

Model Difference: N/A

Report Number: ER/2021/70025

FCC ID: N6C-SXPCEAC2

Issue Date: Sep. 13, 2021

Date of EUT Received: Jul. 09, 2021

Approved By _____

John Yeh

We hereby certify that:

The above equipment was evaluate by SGS Taiwan Ltd. The evaluation in this report is in compliance with FCC Rule Part §2.1091.

The results of this report relate only to the sample identified in this report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Revision History

Report Number	Revision	Description	Issue Date	Revised By
ER/2021/70025	00	Original	Sep. 13, 2021	Susan Lin

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 Product Description

Product Name:	SX-PCEAC2
Brand Name:	silex technology, Inc.
Model No.:	SX-PCEAC2
Model Difference:	N/A
Hardware Version:	JW204670
Firmware Version:	Ver.4
EUT Series No.:	84253F69BAA5
Power Supply:	DC 3.3V

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1.2 Antenna Information:

1.2.1 WLAN 5GHz

Operating Frequency (MHz)	Ant 1 Peak Gain (dBi)
5150.0 ~ 5250.0	2.10
5250.0 ~ 5350.0	2.10

1.3 Rated Power

1.3.1 WLAN 5GHz:

802.11	Freq. Range (MHz)	Modulation Technology	Max. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Worst Case
a	5180~5240	OFDM	16.23	2.10	18.33	
	5260~5320		17.21	2.10	19.31	
n HT20	5180~5240		16.17	2.10	18.27	
	5260~5320		17.26	2.10	19.36	V

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2 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1 FCC Standard Applicable

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission’s guideline.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equipment power density

Prediction of MPE limit at a given distance

$$S = PG / 4\pi R^2$$

Where: S = Power density

P = Power input to antenna

G = Power gain of the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

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2.2 Power Density Calculation (Worst Case)

FCC Standalone MPE

Operation Mode	Evaluation Frequency (MHz)	Operation Distance (cm)	Max. output Power (dBm)	Antenna Gain (dBi)	Max. output Power EIRP (mW)	Power Density (PD) (mW/cm ²)	Limit (mW/cm ²)	Pass / Fail	Power Density / Limit
WLAN 5G	5320.00	20	17.26	2.10	86.30	0.017	1.000	Pass	0.017

~ End of Report ~

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