

RF Exposure Report

Product Name : WiFi 6 ax1800 2x2 dual concurrent M.2 B key Module

Model No. : PCE2310M

FCC ID : U2M-PCE2310M

Applicant : Senao Networks, Inc.

Address : 3F, No. 529, Chung Cheng Rd., Hsintien, Taipei, Taiwan

Date of Receipt : Oct. 12, 2022

Date of Declaration : Nov. 16, 2022

Report No. : 22A0237R-RFUSV17S-A

Report Version : V1.0



The test results relate only to the samples tested.

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

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.



Product Name	WiFi 6 ax1800 2x2 dual concurrent M.2 B key Module	
Applicant	Senao Networks, Inc.	
Address	3F, No. 529, Chung Cheng Rd., Hsintien, Taipei, Taiwan	
Manufacturer	Senao Networks, Inc.	
Model No.	PCE2310M	
FCC ID	U2M-PCE2310M	
Trade Name	Senao	
Applicable Standard	KDB 447498 D01 v06	<input checked="" type="checkbox"/> Minimum test separation distance ≥ 20 cm <input type="checkbox"/> For low power devices
Test Result	Complied	

Documented By : Joanne Lin
 (Senior Project Specialist / Joanne Lin)

Tested By : Alan Chen
 (Senior Engineer / Alan Chen)

Approved By : Tim Sung
 (Manager / Tim Sung)

Revision History

Report No.	Version	Description	Issued Date
22A0237R-RFUSV17S-A	V1.0	Initial issue of report.	Nov. 16, 2022

1. General Information

1.1. EUT Description

Product Name	WiFi 6 ax1800 2x2 dual concurrent M.2 B key Module
Model No.	PCE2310M
Trade Name	Senao
FCC ID	U2M-PCE2310M

Note: For more detailed information please refer to report No.: 22A0237R-RFUSV01S-A,
22A0237R-RFUSV03S-A.

1.2. Test Facility

USA : FCC Registration Number: TW0033

Canada : CAB Identifier Number: TW3023 / Company Number: 26930

Site Description : Accredited by TAF
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd
Address : No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan

Performed Location : No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan,
R.O.C.

Phone Number : +886-3-275-7255

Fax Number : +886-3-327-8031

Email Address : info.tw@dekra.com

Website : <http://www.dekra.com.tw>

2. RF Exposure Evaluation

2.1. Standard Applicable

According to KDB 447498 D01 (7.1), A minimum test separation distance ≥ 20 cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits.

2.2. 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				
3.0-30	1842/f	4.89/f	900/f ²	6
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
1.34-30	824/f	2.19/f	180/f ²	30
300-1500	--	--	F/1500	30
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

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

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

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0

2.3. Test Result of RF Exposure Evaluation

Product : WiFi 6 ax1800 2x2 dual concurrent M.2 B key Module
Test Item : RF Exposure Evaluation for CDD mode

Band	Frequency (MHz)	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
2.4GHz	2437	27.920	619.441	0.1232	1
5GHz	5240	29.750	944.061	0.1878	1

Note: The conducted output power is refer to report No.: 22A0237R-RFUSV01S-A,
22A0237R-RFUSV03S-A from the DEKRA.

Product : WiFi 6 ax1800 2x2 dual concurrent M.2 B key Module
 Test Item : RF Exposure Evaluation for Beamforming mode

Band	Frequency (MHz)	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
2.4GHz	2437	27.130	516.416	0.1027	1
5GHz	5240	29.750	944.061	0.1878	1

Note: The conducted output power is refer to report No.: 22A0237R-RFUSV01S-A, 22A0237R-RFUSV03S-A from the DEKRA.

Results	PASS
---------	------