RF Exposure Report

Report No.:	SA150427C31D
FCC ID:	U2M-PCE4302AN
Test Model:	PCE4302AN
Series Model:	PCE4302AN-xxxxxx (where “x” can be used as “A-Z”, or “-0-9”, or “-“, or blank for software changes or marketing purposes only)
Received Date:	Apr. 27, 2015
Test Date:	May 10 ~ May 29, 2015 (For 2.4G Band and 5GHz U-NII-1) Feb. 06 ~ Feb. 08, 2018 (For 5GHz U-NII-3 Band)
Issued Date:	Feb. 27, 2018
Applicant:	Senao Networks, Inc.
Address:	3F, No. 529, Chung Cheng Rd., Hsintien, New Taipei City, R.O.C
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)
FCC Registration / Designation Number:	788550 / TW0003

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
SA150427C31D	Original release	Feb. 27, 2018

1 Certificate of Conformity

Product:	802.11 ac 2x2 Module
Brand:	Senao
Test Model:	PCE4302AN
Series Model:	PCE4302AN-xxxxxx (where "x" can be used as "A-Z", or "-0-9", or "-", or blank for software changes or marketing purposes only)
Sample Status:	Engineering sample
Applicant:	Senao Networks, Inc.
Test Date:	May 10 ~ May 29, 2015 (For 2.4G Band and 5GHz U-NII-1) Feb. 06 ~ Feb. 08, 2018 (For 5GHz U-NII-3 Band)
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Celine Chou , **Date:** Feb. 27, 2018

Celine Chou / Specialist

Approved by : Bruce Chen , **Date:** Feb. 27, 2018

Bruce Chen / Project Engineer

2 RF Exposure

2.1 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)
Limits For General Population / Uncontrolled Exposure				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$
where
Pd = power density in mW/cm^2
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

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	29.20	5.52	20	0.590	1
5180-5240	23.65	7.64	20	0.268	1
5745-5825	21.98	7.64	20	0.182	1

Note:

2.4GHz: Directional gain = $10 \log[(10G^{1/20} + 10G^{2/20} + ... + 10G^{N/20})^2/2] = 5.52$ dBi

5GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20 + ... +} 10^{GN/20})^2/2] = 7.64$ dBi

* WLAN 2.4GHz and 5GHz technology cannot transmit simultaneously.

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