

## RF Exposure Report

**Report No.:** SA200609C14

**FCC ID:** PY320100484

**Test Model:** SXR80

**Series Model:** SXS80

**Received Date:** Jun. 09, 2020

**Test Date:** Jul. 01 ~ Jul. 05, 2020

**Issued Date:** Jul. 16, 2020

**Applicant:** NETGEAR, INC.

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

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**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
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**FCC Registration /  
Designation Number:** 788550 / TW0003



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## Table of Contents

<b>Release Control Record</b> .....	<b>3</b>
<b>1 Certificate of Conformity</b> .....	<b>4</b>
<b>2 RF Exposure</b> .....	<b>5</b>
2.1 Limits for Maximum Permissible Exposure (MPE).....	5
2.2 MPE Calculation Formula .....	5
2.3 Classification .....	5
<b>3 Calculation Result of Maximum Conducted Power</b> .....	<b>6</b>



### Release Control Record

Issue No.	Description	Date Issued
SA200609C14	Original release	Jul. 16, 2020

## 1 Certificate of Conformity

**Product:** Orbi Pro WiFi 6 Router / Orbi Pro WiFi 6 Satellite

**Brand:** NETGEAR

**Test Model:** SXR80

**Series Model:** SXS80

**Sample Status:** Engineering sample

**Applicant:** NETGEAR, INC.

**Test Date:** Jul. 01 ~ Jul. 05, 2020

**Standards:** FCC Part 2 (Section 2.1091)

**References Test** KDB 447498 D01 General RF Exposure Guidance v06

**Guidance:** IEEE C95.3 -2002

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 :** Pettie Chen , **Date:** Jul. 16, 2020  
Pettie Chen / Senior Specialist

**Approved by :** Bruce Chen , **Date:** Jul. 16, 2020  
Bruce Chen / Senior 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 <sup>2</sup> )	Average Time (minutes)
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 <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

f = Frequency in MHz; \*Plane-wave equivalent power density

### 2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

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 36cm 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 Average Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
<b>CDD Mode</b>					
2412-2462	29.79	6.81	36	0.281	1
5180-5240	29.56	7.56	36	0.316	1
5745-5825	29.90	7.88	36	0.368	1
<b>Beamforming Mode</b>					
2412-2462	29.17	6.81	36	0.243	1
5180-5240	28.41	7.56	36	0.243	1
5745-5825	28.10	7.88	36	0.243	1

\*Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Note: The above Max Power is Tune-up Power which client declared.

#### Conclusion:

The formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$2412-2462 \text{ MHz} + 5180-5240 \text{ MHz} + 5745-5825 \text{ MHz} \\ = 0.281 / 1 + 0.316 / 1 + 0.368 / 1 = 0.965 < 1$$

Therefore the maximum calculations of above situations are less than the "1" limit.

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