

RF Exposure Report

Report No.: SA181019C20F

FCC ID: PY318300427

Test Model: SRC60

Series Model: WAC540

Received Date: Oct. 19, 2018

Test Date: Sep. 10 ~ Sep. 11, 2019

Issued Date: Sep. 11, 2019

Applicant: NETGEAR, INC.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 788550 / TW0003
Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
SA181019C20F	Original release	Sep. 11, 2019

1 Certificate of Conformity

Product: Orbi Pro AC3000 Tri-band Ceiling Add-on Satellite SRC60,
Insight Managed Smart Cloud Wireless Access Point (WAC540)

Brand: NETGEAR

Test Model: SRC60

Series Model: WAC540

Sample Status: Engineering sample

Applicant: NETGEAR, INC.

Test Date: Sep. 10 ~ Sep. 11, 2019

Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D01 General RF Exposure Guidance v06
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:** Sep. 11, 2019
Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Sep. 11, 2019
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 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

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

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

2.3 Classification

The antenna of this product, under normal use condition, is at least 27cm 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)
CDD Mode					
2412-2462	28.59	4.27	27	0.211	1
5180-5240	28.80	4.42	27	0.229	1
5260-5320	23.23	4.15	27	0.060	1
5500-5700	23.34	7.04	27	0.119	1
5745-5825	29.67	7.09	27	0.518	1
Beamforming Mode					
2412-2462	28.57	4.27	27	0.210	1
5180-5240	28.80	4.42	27	0.229	1
5260-5320	23.15	4.15	27	0.059	1
5500-5700	22.13	7.04	27	0.090	1
5745-5825	28.74	7.09	27	0.418	1

Note:

- 2412 ~ 2462MHz: Directional gain = 4.27dBi
5180 ~ 5240MHz: Directional gain = 4.42dBi
5260 ~ 5320MHz: Directional gain = 4.15dBi
5500 ~ 5700MHz: Directional gain = 7.04dBi
5745 ~ 5825MHz: Directional gain = 7.09dBi
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Conclusion:

Both of the WLAN 2.4G & WLAN 5G can transmit simultaneously, the formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

$$2.4G + 5G \text{ Band 1} + 5G \text{ Band 4} = 0.211 / 1 + 0.229 / 1 + 0.518 / 1 = 0.958$$

$$2.4G + 5G \text{ Band 2} + 5G \text{ Band 3} = 0.211 / 1 + 0.060 / 1 + 0.119 / 1 = 0.390$$

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

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