

RF Exposure Report

Report No.: SA181019C20

FCC ID: PY318300427

Test Model: SRC60

Series Model: WAC540

Received Date: Oct. 19, 2018

Test Date: Dec. 20, 2018 ~ Jan. 03, 2019

Issued Date: Jan. 22, 2019

Applicant: NETGEAR, INC.

Address: 350 East Plumeria Drive San Jose, CA 95134

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

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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



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Table of Contents

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

Release Control Record

| Issue No. | Description | Date Issued |
|-------------|------------------|---------------|
| SA181019C20 | Original release | Jan. 22, 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: Dec. 20, 2018 ~ Jan. 03, 2019

Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D01 General RF Exposure Guidance v06
IEEE C95.1-1992

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:** Jan. 22, 2019
Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Jan. 22, 2019
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

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

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 |
| 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 |
| 5745-5825 | 28.74 | 7.09 | 27 | 0.418 | 1 |

Note:

2412 ~ 2462MHz: Directional gain = 4.27dBi

5180 ~ 5240MHz: Directional gain = 4.42dBi

5745 ~ 5825MHz: Directional gain = 7.09dBi

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

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

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

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