

## RF Exposure Report

**Report No.:** SABBQZ-WTW-P20070174

**FCC ID:** PY319400469

**Test Model:** MR5100

**Received Date:** Nov. 04, 2019

**Test Date:** Jun. 30 ~ Jul. 10, 2020

**Issued Date:** Jul. 30, 2020

**Applicant:** Netgear, Inc.

**Address:** 350 E. Plumeria Drive, San Jose CA 95134, USA

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

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, Taiwan

**FCC Registration /** 788550 / TW0003

**Designation Number:**



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### Release Control Record

Issue No.	Description	Date Issued
SABBQZ-WTW-P20070174	Original release	Jul. 30, 2020

## 1 Certificate of Conformity

**Product:** 5G MHS Travel Router

**Brand:** NETGEAR

**Test Model:** MR5100

**Sample Status:** Engineering sample

**Applicant:** Netgear, Inc.

**Test Date:** Jun. 30 ~ Jul. 10, 2020

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

**References Test Guidance:** 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 :**

  
Polly Chen / Specialist

**Date:**

Jul. 30, 2020

**Approved by :**



Bruce Chen / Senior Project Engineer

**Date:**

Jul. 30, 2020

## 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

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

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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)	Output Power EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WCDMA Band 2	23.7	20	0.047	1
LTE Band 2	22.0	20	0.032	1
LTE Band 4	25.9	20	0.077	1
LTE Band 7	23.7	20	0.047	1
LTE Band 30	19.8	20	0.019	1
LTE Band 66	26.5	20	0.089	1
LTE Band 48	19.9	20	0.019	1
NR Band 2	18.0	20	0.013	1
NR Band 66	20.8	20	0.024	1

Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WCDMA Band 5	24.1	26.25	20	0.084	0.55
LTE Band 5	22.3	24.45	20	0.055	0.55
LTE Band 5 (CA 5B)	22.6	24.75	20	0.059	0.55
NR Band 5	21.4	23.55	20	0.045	0.55
LTE Band 12	24.6	26.75	20	0.094	0.47
LTE Band 14	24.8	26.95	20	0.099	0.53
NR Band 5	21.4	23.55	20	0.045	0.55

EIRP = ERP + 2.15dB

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

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