

RF Exposure Report

Report No.: SABBBQZ-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.

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

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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 ²)	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 ²)*	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

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

where

Pd = power density in mW/cm²

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 ²)	Limit (mW/cm ²)
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 ²)	Limit (mW/cm ²)
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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