

RF Exposure Report

Report No.: MFBBQZ-WTW-P22040440

FCC ID: PY322100554

Test Model: WAX625

Received Date: Apr. 13, 2022

Test Date: May 07 ~ Jun. 27, 2022

Issued Date: Jul. 14, 2022

Applicant and Manufacturer: NETGEAR, INC.

Address: 350 East 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 /
Designation Number:** 788550 / TW0003



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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
MFBBQZ-WTW-P22040440	Original release	Jul. 14, 2022

1 Certificate of Conformity

Product: Insight Managed WiFi 6 AX5400 Access Point

Brand: NETGEAR

Test Model: WAX625

Sample Status: Engineering sample

Applicant: NETGEAR, INC.

Test Date: May 07 ~ Jun. 27, 2022

FCC Rule Part: FCC Part 2 (Section 2.1091)

Standards: KDB 447498 D01 General RF Exposure Guidance v06

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. 14, 2022
Pettie Chen / Senior Specialist

Approved by : Jeremy Lin, **Date:** Jul. 14, 2022
Jeremy Lin / Senior 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				
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

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

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 21cm 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 AV Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
CDD Mode					
2412-2462	29.39	2.49	21	0.278	1
5180-5240	29.14	2.87	21	0.287	1
5260-5320	23.52	2.98	21	0.081	1
5500-5720	23.84	2.95	21	0.086	1
5745-5825	29.33	2.89	21	0.301	1
Beamforming Mode					
2412-2462	28.85	3.27	21	0.294	1
5180-5240	29.14	6.02	21	0.592	1
5260-5320	23.52	6.11	21	0.166	1
5500-5720	23.84	6.15	21	0.180	1
5745-5825	29.33	6.20	21	0.645	1

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
CDD Mode				
5845-5885	29.90	21	0.176	1
Beamforming Mode				
5845-5885	34.34	21	0.490	1

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The detailed antenna information, please refer to the Operational Description-Antenna Specification report.

2412-2462MHz: Directional gain = 3.27dBi

5180-5240MHz: Directional gain = 6.02dBi

5260-5320MHz: Directional gain = 6.11dBi

5500-5720MHz: Directional gain = 6.15dBi

5745-5825MHz: Directional gain = 6.20dBi

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

$2.4G + 5GHz = 0.294 / 1 + 0.645 / 1 = 0.939$

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

---END---