RF Exposure Report

Report No.:	SA180613C24B
FCC ID:	PY317300397
Model:	Leopard
Received Date:	Jun. 13, 2018
Test Date:	Jun. 07 ~ Oct. 18, 2018
Issued Date:	Oct. 24, 2018
Applicant:	NETGEAR, INC.
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
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

Testing Laboratory
2021

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SA180613C24B	Original release.	Oct. 24, 2018

1 Certificate of Conformity

Product: Leopard

Brand: NETGEAR

Model: Leopard

Sample Status: Engineering sample

Applicant: NETGEAR, INC.

Test Date: Jun. 07 ~ Oct. 18, 2018

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 :  , **Date:** Oct. 24, 2018

Suntee Liu / Specialist

Approved by :  , **Date:** Oct. 24, 2018

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

$Pd = (Pout*G) / (4*pi*r^2)$
where
Pd = power density in mW/cm^2
Pout = 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 22cm 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)	Mode	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN 2412~2462	CDD 4TX	29.98	3.29	22	0.349	1
WLAN 5180~5240	CDD 8TX	29.46	3.22	22	0.305	1
	Beamforming_NSS1 8TX	24.31	11.37	22	0.608	1
	Beamforming_NSS2 8TX	26.87	8.76	22	0.601	1
	CDD 4TX	24.08	3.22	22	0.088	1
WLAN 5260~5320	CDD 8TX	23.72	3.25	22	0.082	1
	Beamforming_NSS1 8TX	18.18	11.72	22	0.161	1
	Beamforming_NSS2 8TX	21.12	8.81	22	0.162	1
	CDD 4TX	23.50	3.25	22	0.078	1
WLAN 5500~5700	CDD 8TX	23.65	3.32	22	0.082	1
	Beamforming_NSS1 8TX	18.54	11.38	22	0.161	1
	Beamforming_NSS2 8TX	21.38	8.40	22	0.156	1
	CDD 4TX	23.46	3.32	22	0.078	1
WLAN 5745~5825	CDD	29.98	3.10	22	0.334	1
	Beamforming_NSS1 8TX	24.33	11.55	22	0.637	1
	Beamforming_NSS2 8TX	27.34	8.32	22	0.605	1
	CDD 4TX	24.06	3.10	22	0.085	1

Note:

CDD Mode 8TX
2412~2462MHz Directional Gain = 3.29dBi
5180~5240MHz Directional Gain = 3.22dBi
5260~5320MHz Directional Gain = 3.25dBi
5500~5700MHz Directional Gain = 3.32dBi
5745~5825MHz Directional Gain = 3.10dBi

Beamforming_NSS1 Mode 8TX
5180~5240MHz Directional Gain = 11.37dBi
5260~5320MHz Directional Gain = 11.72dBi
5500~5700MHz Directional Gain = 11.38dBi
5745~5825MHz Directional Gain = 11.55dBi

Beamforming_NSS2 Mode 8TX
5180~5240MHz Directional Gain = 8.76dBi
5260~5320MHz Directional Gain = 8.81dBi
5500~5700MHz Directional Gain = 8.40dBi
5745~5825MHz Directional Gain = 8.32dBi

CDD Mode 4TX
5180~5240MHz Directional Gain = 3.22dBi
5260~5320MHz Directional Gain = 3.25dBi
5500~5700MHz Directional Gain = 3.32dBi
5745~5825MHz Directional Gain = 3.10dBi

Conclusion:
The formula of calculated the MPE is:
CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1
CPD = Calculation power density
LPD = Limit of power density

Worst case: WLAN 2.4GHz + WLAN 5GHz band 4 (8TX) = 0.349 + 0.637 = 0.986 < 1
Worst case: WLAN 2.4GHz + WLAN 5GHz band 1 (4TX) + WLAN 5GHz band 4 (4TX) = 0.349 + 0.088 + 0.085 = 0.522 < 1

---END---