

RF Exposure Report

Report No.: SA170322E05

FCC ID: PY317100371

Test Model: ABC1000

Received Date: Mar. 22, 2017

Test Date: Apr. 04 to 07, 2017

Issued Date: Apr. 13, 2017

Applicant: NETGEAR, INC

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

Issue No.	Description	Date Issued
SA170322E05	Original release.	Apr. 13, 2017

1 Certificate of Conformity

Product: Alro Baby

Brand: NETGEAR

Test Model: ABC1000

Sample Status: ENGINEERING SAMPLE

Applicant: NETGEAR, INC

Test Date: Apr. 04 to 07, 2017

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 EMC characteristics under the conditions specified in this report.

Prepared by : Wendy Wu , **Date:** Apr. 13, 2017
Wendy Wu / Specialist

Approved by : May Chen , **Date:** Apr. 13, 2017
May Chen / Manager

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

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm²

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 20cm away from the body of the user.

So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Chain No.	Ant. Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type
Chain 0	2.64	2.4~2.4835	PIFA	NA
	5.61	5.15~5.25		
	4.92	5.25~5.35		
	4.83	5.47~5.725		
	5.38	5.725~5.85		
Chain 1	3.18	2.4~2.4835	Monopole	NA
	4.13	5.15~5.25		
	4.23	5.25~5.35		
	3.14	5.47~5.725		
	2.82	5.725~5.85		

2.5 Calculation Result Of Maximum Conducted Power

For WLAN:

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	162.555	3.18	20	0.06726	1
5180-5240	75.162	5.61	20	0.05442	1
5745-5825	79.799	5.38	20	0.05479	1

For Bluetooth:

BT-EDR

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2402-2480	10.093	3.18	20	0.00418	1

BT-LE

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2402-2480	2.118	3.18	20	0.00088	1

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

WLAN 5GHz + Bluetooth = $0.05479 / 1 + 0.00418 / 1 = 0.05897$

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

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