RF Exposure Report

Report No.:	SA160321D09
FCC ID:	K7SF9K1124V1
Test Model:	F9K1124V1
Received Date:	Mar. 21, 2016
Test Date:	Mar. 23 ~ 25, 2016
Issued Date:	Apr. 1, 2016
Applicant:	Belkin International, Inc.
Address:	12045 East Waterfront Drive, Playa Vista, CA 90094 USA
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.)

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Release Control Record

Issue No.	Description	Date Issued
SA160321D09	Original release.	Apr. 1, 2016

1 Certificate of Conformity

Product:	AC1900 DB Wi-Fi Dual-Band AC+ Gigabit Router
Brand:	Belkin
Test Model:	F9K1124V1
Sample Status:	Engineering sample
Applicant:	Belkin International, Inc.
Test Date:	Mar. 23 ~ 25, 2016
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 : Celia Chen , **Date:** Apr. 1, 2016

(Celia Chen / Supervisor)

Approved by : Rex. Lai , **Date:** Apr. 1, 2016

(Rex Lai / Assistant 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				
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 32cm 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 Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	28.99	7.48	32	0.3447	1
5180-5240	24.67	7.82	32	0.1379	1
5745-5825	26.09	7.82	32	0.1912	1

NOTE:
1. 2.4GHz: Directional gain = 2.71dBi + 10log(3) = 7.48dBi
2. 5.0GHz: Directional gain = 3.05dBi + 10log(3) = 7.82dBi
3. Driver Version: V1.04.03

Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5180-5240MHz + WLAN 5745-5825MHz

= 0.3447/1 + 0.1379/1 + 0.1912/1 = 0.6738

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

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