

## RF Exposure Report

**Report No.:** SABEMT-WTW-P20100622

**FCC ID:** K7S-08270

**Test Model:** RE7350

**Series Model:** RE7310

**Received Date:** Oct. 26, 2020

**Test Date:** Nov. 11, 2020

**Issued Date:** Dec. 15, 2020

**Applicant:** Belkin International, Inc.

**Address:** 12045 East Waterfront Drive Playa Vista, CA 90094 United States Of America

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

**FCC Registration /  
Designation Number:** 723255 / TW2022

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### Release Control Record

Issue No.	Description	Date Issued
SABEMT-WTW-P20100622	Original release.	Dec. 15, 2020

## 1 Certificate of Conformity

**Product:** LINKSYS RE7350 WIFI 6 RANGE EXTENDER, AX1800  
LINKSYS RE7310 WIFI RANGE EXTENDER, AX1800

**Brand:** Linksys

**Test Model:** RE7350

**Series Model:** RE7310

**Sample Status:** Engineering sample

**Applicant:** Belkin International, Inc.

**Test Date:** Nov. 11, 2020

**Standards:** FCC Part 2 (Section 2.1091)  
IEEE C95.3 -2002

**References Test Guidance** 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 EMC characteristics under the conditions specified in this report.

**Prepared by :** Joyce Kuo , **Date:** Dec. 15, 2020  
Joyce Kuo / Specialist

**Approved by :** Clark Lin , **Date:** Dec. 15, 2020  
Clark Lin / Technical 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 <sup>2</sup> )	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 <sup>2</sup> )*	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/cm<sup>2</sup>

$P_{out}$  = 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 35cm away from the body of the user.

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

## 2.4 Antenna Gain

Antenna No.	RF Chain No.	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	DB1	4.9	2.4~2.4835	PCB	i-pex(MHF)	80
		5.3	5.15~5.25			
		4.8	5.725~5.85			
2	DB2	4.9	2.4~2.4835	PCB	i-pex(MHF)	80
		5.5	5.15~5.25			
		5.1	5.725~5.85			

\*The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

## 2.5 Calculation Result

Operation Mode	Evaluation Frequency (MHz)	Max AV Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/m <sup>2</sup> )
WiFi 2.4GHz	2412-2462	516.519	7.91	35	0.20737	1
WiFi 5GHz (U-NII-1)	5180-5240	538.719	8.41	35	0.24267	1
WiFi 5GHz (U-NII-3)	5745-5825	563.029	7.96	35	0.22866	1

Note:

- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
- 2.4GHz: Directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 7.91 \text{ dBi}$   
5GHz U-NII-1: Directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 8.41 \text{ dBi}$   
5GHz U-NII-3: Directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 7.96 \text{ dBi}$

### 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

$WLAN\ 2.4GHz + WLAN\ 5GHz = 0.20737 / 1 + 0.24267 / 1 = 0.45004$

**Therefore the maximum calculations of above situations are less than the “1” limit.**

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