

## RF Exposure Report

**Report No.:** SA200312E01

**FCC ID:** SWX-AF60LR

**Test Model:** AF60-LR

**Received Date:** Aug. 16, 2019

**Test Date:** Apr. 20, 2020

**Issued Date:** May 08, 2020

**Applicant:** Ubiquiti Inc.

**Address:** 685 Third Avenue, New York, New York 10017 USA

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

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Taiwan

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
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**FCC Registration /  
Designation Number:** 723255 / TW2022

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### Release Control Record

Issue No.	Description	Date Issued
SA200312E01	Original release.	May 08, 2020

## 1 Certificate of Conformity

**Product:** airFiber 60 LR

**Brand:** UBIQUITI

**Test Model:** AF60-LR

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** Ubiquiti Inc.

**Test Date:** Apr. 20, 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.

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Joyce Kuo / Specialist

**Approved by :** Clark Lin , **Date:** May 08, 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 110 cm away from the body of the user.

## 2.4 Calculation Result

Operation Mode	Evaluation Frequency (MHz)	Max.Avg. EIRP (dBm)	Max. EIRP (mW)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
BT-LE	2480	7.09	5.117	110	0.00003	1
Wigig	69120	51.25	133352.1432	110	0.87701	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

### Simultaneously transmission condition:

$BT-LE + Wigig = 0.00003 / 1 + 0.87701 / 1 = 0.87704$

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

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