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

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
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.

Prepared by : _____ , **Date:** _____ May 08, 2020 _____

Joyce Kuo / Specialist

Approved by : _____ , **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^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/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 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^2)	Limit (mW/cm^2)
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 + ……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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