

FCC RF Exposure Report

FCC ID : SWX-AF60

Equipment : airFiber 60

Model No. : AF60

Brand Name : UBIQUITI

Applicant : Ubiquiti Inc.

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

USA

Standard : 47 CFR FCC Part 2.1091

Received Date : Aug. 14, 2019

Tested Date : Aug. 14 ~ Oct. 24, 2019

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: Approved by:

Along Ched/ Assistant Manager Gary Chang / Manager

Testing Laboratory

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Release Record

Report No.	Version	Description	Issued Date	
FA981302-01	Rev. 01	Initial issue	Dec. 17, 2019	
FA981302-01	Rev. 02	Evaluation Distance is modified and MPE of Co-located is added	Dec. 27, 2019	

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1 MPE EVALUATION OF MOBILE DEVICES

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 40 cm or more from persons.

1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm²)	Averaging Time (minutes)		
300~1500	F/1500	30		
1500~100000	1.0	30		

1.2 MPE EVALUATION FORMULA

$$Pd = \frac{Pt}{4*Pi*R^2}$$

Where

Pd= Power density in mW/cm²

Pt= EIRP in mW Pi= 3.1416

R= Measurement distance

1.3 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

1.4 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Parameters	Uncertainty			
Conducted power	±0.808 dB			

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

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1.5 MPE EVALUATION RESULTS

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm²)	Ratio*	Pass / Fail
5250-5350	18.82	19	11	40	0.05	1	0.05	Pass
5470-5725	18.79	19	11	40	0.05	1	0.05	Pass

^{*}Ratio = Power density / Limit.

MPE Evaluation of Simultaneous Transmission

Below information from original Wi-Fi / BT LE test report.

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm²)	Ratio*	Pass / Fail
2412~2462 (Wi-Fi)	21.59	22	2	40	0.012	1	0.012	Pass
5150~5250 (Wi-Fi)	25.45	25.5	11	40	0.222	1	0.222	Pass
5725~5850 (Wi-Fi)	25.48	25.5	11	40	0.222	1	0.222	Pass

Frequency Range (MHz)	Field strength (AV value, dBuV/m)	E.I.R.P (dBm)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm²)	Ratio*	Pass / Fail
2402 - 2480	89.18	-6.02	40	0.00001	1	0.00001	Pass

Mode	Max Ratio of Each Mode
Wi-Fi 2.4 GHz	0.012
Wi-Fi 5 GHz	0.222
BT LE	0.00001
Sum (Wi-Fi 2.4 GHz+ Wi-Fi 5 GHz+BT LE)	0.234
Limit	1
Pass / Fail	Pass

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2 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City,

Taiwan, R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City

333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C..

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666 Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

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