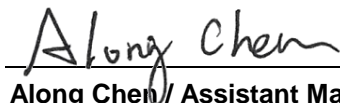


# FCC RF Exposure Report

**FCC ID** : SWX-UDR  
**Equipment** : UniFi Dream Router  
**Model No.** : UDR  
**Brand Name** : UBIQUITI  
**Applicant** : Ubiquiti Inc.  
**Address** : 685 Third Avenue, (27th Floor) New York, New York 10017 USA  
**Standard** : 47 CFR FCC Part 2.1091  
**Received Date** : Jun. 08, 2021  
**Tested Date** : Jul. 14 ~ Oct. 08, 2021

We, International Certification Corporation, 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:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager



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## Release Record

Report No.	Version	Description	Issued Date
FA160801-02	Rev. 01	Initial issue	Nov. 11, 2021

# 1 General Description

## 1.1 Information

This report is issued as a supplementary report to original ICC report no. FA160801. The difference is concerned with following item:

- ✧ LCM spi clk pin R8421 change to 33 ohm
- ✧ 2. LED DIN pin R8408 change to 47 ohm
- ✧ 3. Vendor of power transformer is changed.
- ✧ 4. Conductive fabric is added on RJ45 port
- ✧ 5. 5.25 ~ 5.35GHz and 5.47 ~ 5.725 GHz is enabled by software setting

### 1.1.1 Antenna Details

#### WLAN 2.4G

Ant. No.	Brand	Model	Type	Connector	Gain (dBi)
1	UBIQUITI	ANT 0	Short-circuited Monopole	I-PEX	3.4
2	UBIQUITI	ANT 1	Short-circuited Monopole	I-PEX	3.4
3	UBIQUITI	ANT 2	Short-circuited Monopole	I-PEX	3.4
4	UBIQUITI	ANT 3	Short-circuited Monopole	I-PEX	3.4

#### WLAN 5G

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)			
					5150~5250	5250~5350	5470~5725	5725~5850
1	UBIQUITI	ANT 0	Short-circuited Monopole	I-PEX	4.3	4.3	4.3	4.3
2	UBIQUITI	ANT 1	Short-circuited Monopole	I-PEX	4.3	4.3	4.3	4.3
3	UBIQUITI	ANT 2	Short-circuited Monopole	I-PEX	4.3	4.3	4.3	4.3
4	UBIQUITI	ANT 3	Short-circuited Monopole	I-PEX	4.3	4.3	4.3	4.3

#### BT

Ant. No.	Brand	Model	Type	Connector	Gain (dBi)	Remarks
1	UBIQUITI	ANT 5	Dipole	I-PEX	2.5	---

## 2 MPE EVALUATION OF MOBILE DEVICES

### 2.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm <sup>2</sup> )	Averaging Time (minutes)
300~1500	F/1500	30
1500~100000	1.0	30

### 2.2 MPE EVALUATION FORMULA

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

Where

Pd= Power density in mW/cm<sup>2</sup>

Pt= EIRP in mW

Pi= 3.1416

R= Measurement distance

### 2.3 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

### 2.4 MEASUREMENT UNCERTAINTY

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.

## 2.5 MPE EVALUATION RESULTS

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	*Ratio	Pass / Fail
2412~2462 <sup>Note</sup>	27.26	27.5	3.4	20	0.245	1	0.245	Pass
5150~5250 <sup>Note</sup>	25.28	25.5	4.3	20	0.190	1	0.190	Pass
5725~5850 <sup>Note</sup>	26.85	27	4.3	20	0.268	1	0.268	Pass
2402~2480 <sup>Note</sup>	12.17	12.5	2.5	20	0.006	1	0.006	Pass
5250~5350	21.25	21.5	4.3	20	0.076	1	0.076	Pass
5470~5725	23.48	23.5	4.3	20	0.120	1	0.120	Pass

\*Ratio = Power density / Limit.

**Note:**

- These 4 frequency bands are certified for original grant.

## 2.6 MPE EVALUATION OF SIMULTANEOUS TRANSMISSION

Mode	Max Ratio of Each Mode
Wi-Fi 2.4 GHz	0.245
Wi-Fi 5 GHz	0.268
Sum (Wi-Fi 2.4 GHz+ Wi-Fi 5 GHz)	0.513
Limit	1
Pass / Fail	Pass

### 3 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 Corporation (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  
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(R.O.C.)

#### **Kwei Shan**

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)  
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St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

#### **Kwei Shan Site II**

Tel: 886-3-271-8640

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St., Kwei Shan Dist., Tao Yuan  
City 333, Taiwan (R.O.C.)

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

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==END==