

# FCC RF Exposure Report

**FCC ID** : I88WAC6103D-IA  
**Equipment** : 802.11 ac Unified Pro Access Point  
(Please refer to section 1.1.1 for more details)  
**Model No.** : WAC6103D-I  
(Please refer to section 1.1.1 for more details)  
**Brand Name** : ZYXEL  
**Applicant** : Zyxel Communications Corporation  
**Address** : No.2 Industry East RD. IX, Hsinchu Science  
Park, Hsinchu 30075, Taiwan, R.O.C  
**Standard** : 47 CFR FCC Part 2.1091  
**Received Date** : Jul. 4, 2019  
**Tested Date** : Oct. 24 ~ Mar. 30, 2020

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:

  
Along Chen / Assistant Manager

Approved by:

  
Gary Chang / Manager



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## Table of Contents

<b>1</b>	<b>MPE EVALUATION OF MOBILE DEVICES .....</b>	<b>4</b>
1.1	LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE.....	5
1.2	MPE EVALUATION FORMULA .....	5
1.3	DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE .....	5
1.4	MEASUREMENT UNCERTAINTY .....	5
1.5	MPE EVALUATION RESULTS .....	6
1.6	MPE EVALUATION OF SIMULTANEOUS TRANSMISSION.....	6
<b>2</b>	<b>TEST LABORATORY INFORMATION .....</b>	<b>7</b>

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## Release Record

Report No.	Version	Description	Issued Date
FA563002-11	Rev. 01	Initial issue	Jun. 08, 2020

# 1 General Description

## 1.1 Information

### 1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
ZYXEL	WAC6103D-I	802.11 ac Unified Pro Access Point	For marketing purpose
	NAP203	802.11ac Dual-Radio Nebula Cloud Managed Access Point	
	NWA1123-AC PRO	802.11ac Dual-Radio Dual-Mount PoE Access Point	
† The accessories PoE and RJ45 cable is only for model NWA1123-AC PRO			

## 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

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.

## 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 (Wi-Fi)	27.02	27.5	4.33	20	0.303	1	0.303	Pass
5150~5250 (Wi-Fi)	27.12	27.5	5.12	20	0.364	1	0.364	Pass
5725~5850 (Wi-Fi)	28.33	28.5	5.20	20	0.466	1	0.466	Pass

\*Ratio = Power density / Limit.

## 2.6 MPE EVALUATION OF SIMULTANEOUS TRANSMISSION

Mode	Max Ratio of Each Mode
2.4 GHz Wi-Fi	0.303
5 GHz Wi-Fi	0.466
Sum	0.769
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 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**

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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

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