

**Amped Wireless**  
**13089 Peyton Dr. #C307 Chino Hills California 91709 United States**

Federal Communications Commission  
Authorization and Evaluation Division  
Equipment Authorization Branch  
7435 Oakland Mills Road  
Columbia, MD 21046

### **Applicant's declaration concerning RF Radiation Exposure**

We hereby indicate that the product

Product description: High Power 700mW Dual Band AC Wi-Fi Access Point

Model No: APA20

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the Product : High Power 700mW Dual Band AC Wi-Fi Access Point will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6D21310-13579-C-1 and the accompanying calculations.

Company: Amped Wireless

Address: 13089 Peyton Dr. #C307 Chino Hills California 91709 United States

Date: July 26, 2013

Signature



Registration number: W6D21310-13579-C-1  
 FCC ID: ZTT-APA20

**3.2 Equivalent isotropic radiated power**

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

5.8GHz:802.11a

$$\begin{aligned} \text{EIRP} &= 21.38 \text{ dBm} + 7.52 \text{ dBi} \\ &= 28.90 \text{ dBm} \end{aligned}$$

5.8GHz:802.11n(20MHz), 802.11n(40MHz)

$$\begin{aligned} \text{EIRP} &= 23.73 \text{ dBm} + 7.52 \text{ dBi} \\ &= 31.25 \text{ dBm} \end{aligned}$$

5.8GHz:802.11ac

$$\begin{aligned} \text{EIRP} &= 21.88 \text{ dBm} + 7.52 \text{ dBi} \\ &= 29.40 \text{ dBm} \end{aligned}$$

2.4GHz:802.11b/g

$$\begin{aligned} \text{EIRP} &= 28.92 \text{ dBm} + 6.64 \text{ dBi} \\ &= 35.56 \text{ dBm} \end{aligned}$$

2.4GHz: 802.11n(20MHz), 802.11n(40MHz)

$$\begin{aligned} \text{EIRP} &= 28.66 \text{ dBm} + 6.64 \text{ dBi} \\ &= 35.30 \text{ dBm} \end{aligned}$$

Limit: EIRP = +36 dBm for Antenna gain <6dBi

Test equipment used: ETSTW-RE 055

**3.3 RF Exposure Compliance Requirements**

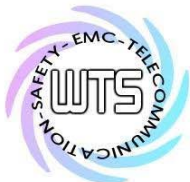
FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4 \pi R^2}$$

- S – Power Density
  - P – Output power ERP
  - R – Distance
  - D – Cable Loss
  - AG – Antenna Gain
- 5.8GHz:802.11a

Item	Unit	Value	Remarks
P	mW	137.4042	Peak value
D	dB		
AG	dBi	7.52	
G		5.6494	Calculated Value
R	cm	20	Assumed value
S	mW/cm2	0.1544	Calculated value



# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6D21310-13579-C-1

FCC ID: ZTT-APA20

5.8GHz:802.11n(20MHz), 802.11n(40MHz)

Item	Unit	Value	Remarks
P	mW	236.0478	Peak value
D	dB		
AG	dBi	7.52	
G		5.6494	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.2653	Calculated value

5.8GHz:802.11ac

Item	Unit	Value	Remarks
P	mW	154.1700	Peak value
D	dB		
AG	dBi	7.52	
G		5.6494	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.1733	Calculated value

802.11b/g

Item	Unit	Value	Remarks
P	mW	779.8301	Peak value
D	dB		
AG	dBi	6.64	
G		4.6132	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.7157	Calculated value

2.4G:802.11n(20MHz), 802.11n(40MHz)

Item	Unit	Value	Remarks
P	mW	734.5139	Peak value
D	dB		
AG	dBi	6.64	
G		4.6132	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.6741	Calculated value

Limits:

Limit for General Population / Uncontrolled Exposure	
Frequency (MHz)	Power Density (mW/cm <sup>2</sup> )
1500 – 100.000	1.0