

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 500mW Dual Band AC Wi-Fi USB Adapter

Model No: ACA1

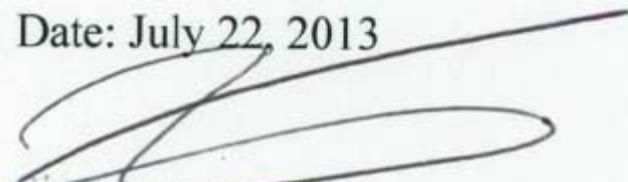
The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the Product : High Power 500mW Dual Band AC Wi-Fi USB Adapter 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: W6M21301-12973-C-1 and the accompanying calculations.

Company: Amped Wireless

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

Date: July 22, 2013

Signature



Registration number: W6M21301-12973-C-1
 FCC ID: ZTT-ACA1

3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain(Directional gain)

5.8GHz:802.11a

EIRP = 24.38 dBm + 7.01 dBi
 = 31.39 dBm

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

EIRP = 27.12 dBm + 7.01 dBi
 = 34.13 dBm

5.8GHz:802.11ac

EIRP = 21.27 dBm + 7.01 dBi
 = 28.28 dBm

2.4GHz:802.11b/g

EIRP = 22.75 dBm + 5.01 dBi
 = 27.76 dBm

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

EIRP = 22.78 dBm + 5.01 dBi
 = 27.79 dBm

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	274.1574	Peak value
D	dB		
AG	dBi	7.01	
G		5.0234	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.2740	Calculated value

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

Item	Unit	Value	Remarks
P	mW	515.2286	Peak value
D	dB		
AG	dBi	7.01	
G		5.0234	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.5149	Calculated value



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21301-12973-C-1

FCC ID: ZTT-ACA1

5.8GHz:802.11ac

Item	Unit	Value	Remarks
P	mW	133.9677	Peak value
D	dB		
AG	dBi	7.01	
G		5.0234	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.1339	Calculated value

2.4GHz:802.11b/g

Item	Unit	Value	Remarks
P	mW	188.3649	Peak value
D	dB		
AG	dBi	5.01	
G		3.1696	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.1188	Calculated value

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

Item	Unit	Value	Remarks
P	mW	189.6706	Peak value
D	dB		
AG	dBi	5.01	
G		3.1696	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.1196	Calculated value

Limits:

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