

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 Touch Screen AC750 Wi-Fi Router
Model No: TAP-R2

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.

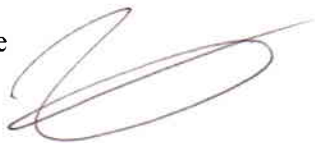
A safety statement concerning minimum separation distances from enclosure of the Product : High Power Touch Screen AC750 Wi-Fi Router will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6D21410-14561-C-1 and W6D21410-14561-C-54 and the accompanying calculations.

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

Date: 2014/12/25

Signature





Registration number: W6D21410-14561-C-1

FCC ID: ZTT-TAPR2

3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3)

For systems using digital modulation in the 2.4 GHz – 2.4835 GHz bands: 1 Watt.

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test equipment used: ETSTW-RE 055

3.3 RF Exposure Compliance Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.25 m normally can be maintained between the user and the device.

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

Item	Unit	Value	Remarks
P	mW	612.3504	Peak value
D	dB		
AG	dBi	6.41	
G		4.3752	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.5330	Calculated value

Limits:

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



Registration number: W6D21410-14561-C-54

FCC ID: ZTT-TAPR2

3.8 Radio Frequency Radiation Exposure, FCC 15.407 (f)

FCC Rule: 15.407(b)(3)

EIRP = max. conducted output power + antenna gain

$$\begin{aligned} \text{EIRP} &= 16.79 \text{ dBm} + 3.13 \text{ dBi} \\ &= 19.92 \text{ dBm} \end{aligned}$$

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

Test equipment used: ETSTW-RE 055

3.9 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

Item	Unit	Value	Remarks
P	mW	47.7529	Peak value
D	dB		
AG	dBi	3.13	
G		2.0559	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.0195	Calculated value

3.10 Transmit Power Control (TPC)

Transmit power control (TPC). U-NII devices operating in the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

Explanation: The EUT operates 5725 MHz – 5850 MHz, so this test item is not required.