



Company:  
Model Tested:  
DLS Project:

Whirlpool Corporation  
Amber WiFi Module, WICHAM01  
7620

166 South Carter, Genoa City, WI 53128

**FCC Code of Federal Regulations 47 Part 1.1307(b) (1)**

**RF Exposure Statement of Compliance**

**THE FOLLOWING MEETS THE ABOVE TEST SPECIFICATION**

Formal Name: Amber WiFi Module  
Kind of Equipment: 802.11b/g/n Wi-Fi appliance module  
Frequency Range: 2412-2462 MHz  
Test Configuration: DC powered transceiver module  
Model Number(s): WICHAM01  
Model(s) Tested: WICHAM01  
Serial Number(s): RF Conducted SN: 15501X01D01160800025AK01  
Radiated (on-board antennas) SN: 15501X01D01160800070AK01  
Radiated (external antennas) SN: 15501X01D01160800025AK01  
Date of Tests: March 14<sup>th</sup>, 2016  
Test Conducted For: Whirlpool Corporation  
750 Monte Rd  
Benton Harbor, MI 49022, USA



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#### Transmitter Information:

Maximum Conducted Output Power:	24.61 dBm
Maximum Effective Isotropic Radiated Power	28.81 dBm
Frequency:	2437 MHz
Antenna Type:	External PIFA antenna
Antenna Gain:	4.2 dBi

#### Exposure Limit:

Maximum Permissible Exposure (MPE) limit for General Population / Uncontrolled Exposure in the frequency range 1500 – 100,000 MHz (ref: 47 CFR Part 1.1310 Table 1(b))

Limit: (S) (mW/cm<sup>2</sup>) = 1.0 mW/cm<sup>2</sup>

#### MPE Calculation:

Power Density (mW/cm<sup>2</sup>):

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

S = Power Density (mW/cm<sup>2</sup>)

P = Power Input to the antenna (mW)

G = Numeric Power Gain of the antenna

R = Distance to the center of the radiation of the antenna (cm)



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## Results:

RF Exposure Calculation								
Input								
Frequency =	2437	MHz						
P =	24.61	dBm						
G =	4.2	dBi						
R =	20	cm						
$\pi$	3.14159							
Transmit Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Power Density Limit (mW/cm <sup>2</sup> )	Margin
2437	24.61	289.06799	4.2	2.63027	20	0.1513	1.0	0.849

## Summary of Results:

With a minimum separation distance of 20 centimeters as defined by FCC 2.1091(b), for a mobile device, the Whirlpool Corporation Amber WiFi Module model WICHAM01 **meets** the RF exposure evaluation requirements for maximum permissible exposure to any radiating structure and the general population / uncontrolled exposure.

## Conclusion:

The Whirlpool Corporation Amber WiFi Module model WICHAM01 operating under FCC part 15.247 complies with the requirements of FCC Part 1.1307(b)(1) for RF Exposure Evaluation.