



166 South Carter, Genoa City, WI 53128

Company:  
Model Tested:  
DLS Project:

Whirlpool Corporation  
XPWG3  
7037

## 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:        | Wifi Gen3                                                             |
| 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):    | XPWG3                                                                 |
| Model(s) Tested:    | XPWG3                                                                 |
| Serial Number(s):   | RF Conducted SN: GW95013003GG<br>Radiated SN: GW95013003IC            |
| Date of Tests:      | February 27 <sup>th</sup> through March 19 <sup>th</sup> , 2015       |
| Test Conducted For: | Whirlpool Corporation<br>750 Monte Rd<br>Benton Harbor, MI 49022, USA |



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### Transmitter Information:

|                                            |                  |
|--------------------------------------------|------------------|
| Maximum Conducted Output Power:            | 25.08 dBm        |
| Maximum Effective Isotropic Radiated Power | 26.84 dBm        |
| Frequency:                                 | 2412 MHz         |
| Antenna Type:                              | PCB slot antenna |
| Antenna Gain:                              | 1.76 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) ( $\text{mW}/\text{cm}^2$ ) =  $1.0 \text{ mW}/\text{cm}^2$

### MPE Calculation:

Power Density ( $\text{mW}/\text{cm}^2$ ):

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

S = Power Density ( $\text{mW}/\text{cm}^2$ )

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 =              | 2412               | MHz               |                    |                        |               |                                     |                                           |        |
| P =                      | 26.84              | dBm               |                    |                        |               |                                     |                                           |        |
| G =                      | 1.76               | 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 |
| 2412                     | 26.84              | 483.05880         | 1.76               | 1.49968                | 20            | 0.1441                              | 1.0                                       | 0.856  |
|                          |                    |                   |                    |                        |               |                                     |                                           |        |

## Summary of Results:

With a minimum separation distance of 20 centimeters as defined by FCC 2.1091(b), for a mobile device, the Whirlpool Inc. Wifi Gen3 model XPWG3 **meets** the RF exposure evaluation requirements for maximum permissible exposure to any radiating structure and the general population / uncontrolled exposure.

## Conclusion:

The Whirlpool Inc Wifi Gen3 model XPWG3 operating under FCC part 15.247 complies with the requirements of FCC Part 1.1307(b)(1) for RF Exposure Evaluation.