



Company:
Model Tested:
DLS Project:

Whirlpool Corporation
WICHTO01
8732

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:	Tourmaline WIFI Module
Kind of Equipment:	802.11 b/g/n WIFI Appliance Module
Frequency Range:	2412-2462 MHz
Test Configuration:	DC powered transceiver module
Model Number(s):	WICHTO01
Model(s) Tested:	WICHTO01
Serial Number(s):	15502E01D00770600009KSSA and 15502E01D00970600018KSSA
Date of Tests:	March 16 th , 2017
Test Conducted For:	Whirlpool Corporation 750 Monte Rd Benton Harbor, MI 49022, USA



Company:
Model Tested:
DLS Project:

Whirlpool Corporation
WICHTO01
8732

166 South Carter, Genoa City, WI 53128

Transmitter Information:

Maximum Conducted Output Power:	23.25 dBm
Maximum Effective Isotropic Radiated Power	27.45 dBm
Frequency:	2462 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: $(S) \text{ (mW/cm}^2\text{)} = 1.0 \text{ mW/cm}^2$

MPE Calculation:

Power Density (mW/cm^2):

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

S = Power Density (mW/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)



Company:
Model Tested:
DLS Project:

Whirlpool Corporation
WICHTO01
8732

166 South Carter, Genoa City, WI 53128

Results:

RF Exposure Calculation								
	Input							
Frequency =	2462	MHz						
P =	23.25	dBm						
G =	4.2	dBi						
R =	20	cm						
π	3.14159							
Transmit Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)	Margin
2462	23.25	211.34890	4.2	2.63027	20	0.1106	1.0	0.889

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 Tourmaline WiFi Module model WICHTO01 **meets** the RF exposure evaluation requirements for maximum permissible exposure to any radiating structure and the general population / uncontrolled exposure.

Conclusion:

The Whirlpool Corporation Tourmaline WiFi Module model WICHTO01 operating under FCC part 15.247 complies with the requirements of FCC Part 1.1307(b)(1) for RF Exposure Evaluation.