

**FCC RF EXPOSURE REPORT**

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EUT</b>                        | WIFI Smart Dual Plug Outlet                                                                                                                                                                                                                                                                                                                                                                           |
| <b>FCC ID</b>                     | ZZH-WF15FP2M                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Frequency band (Operating)</b> | <input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz<br><input type="checkbox"/> WLAN: 2.422GHz ~ 2.452GHz<br><input type="checkbox"/> WLAN: 5.180GHz ~ 5.240GHz<br><input type="checkbox"/> WLAN: 5.260GHz ~ 5.320GHz<br><input type="checkbox"/> WLAN: 5.500GHz ~ 5.700GHz<br><input type="checkbox"/> BLE: 2.402GHz ~ 2.480GHz<br><input type="checkbox"/> Bluetooth: 2.402GHz ~ 2.480GHz |
| <b>Device category</b>            | <input type="checkbox"/> Portable (<20cm separation)<br><input checked="" type="checkbox"/> Mobile (>20cm separation)                                                                                                                                                                                                                                                                                 |
| <b>Exposure classification</b>    | <input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> )<br><input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )                                                                                                                                                                                                         |
| <b>Antenna diversity</b>          | <input checked="" type="checkbox"/> Single antenna<br><input type="checkbox"/> Multiple antennas<br><input type="checkbox"/> Tx diversity<br><input type="checkbox"/> Rx diversity<br><input type="checkbox"/> Tx/Rx diversity                                                                                                                                                                        |
| <b>Max. output power</b>          | 23.63dBm (230.675 mW)                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Antenna gain (Max)</b>         | 3dBi(Numeric gain:2)                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Evaluation applied</b>         | <input checked="" type="checkbox"/> MPE Evaluation*<br><input type="checkbox"/> SAR Evaluation<br><input type="checkbox"/> N/A                                                                                                                                                                                                                                                                        |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                       |

**TEST RESULTS**

No non-compliance noted.

**Calculation**

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{3770}$

Where  $E$  = Field strength in Volts / meter  
 $P$  = Power in Watts  
 $G$  = Numeric antenna gain  
 $d$  = Distance in meters  
 $S$  = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$
$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where  $d$  = Distance in cm  
 $P$  = Power in mW  
 $G$  = Numeric antenna gain  
 $S$  = Power density in mW / cm<sup>2</sup>

**Maximum Permissible Exposure**

| Modulation Mode | Frequency band (MHz) | Peak output power(dBm) | Peak output power(mW) | Antenna Gain (dBi) | Antenna gain (Numeric ) | Distance (cm) | Power density (mW/cm2) | Limit (mW/cm2) |
|-----------------|----------------------|------------------------|-----------------------|--------------------|-------------------------|---------------|------------------------|----------------|
| 802.11b         | 2412-2462            | 20.29                  | 106.9054879           | 3                  | 2.00                    | 20            | 0.04244759             | 1              |
| 802.11g         | 2412-2462            | 23.63                  | 230.6747189           | 3                  | 2.00                    | 20            | 0.09159106             | 1              |
| 802.11n HT20    | 2412-2462            | 23.54                  | 225.943577            | 3                  | 2.00                    | 20            | 0.08971252             | 1              |