

### **Compliance Certification Services Inc.**

Report No: C150420Z02-RP1\_MPE FCC ID: VEPGL-GSMGXW01 Date of Issue: May 7, 2015

# RADIO FREQUENCY EXPOSURE

## **LIMIT**

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 of the Commission's guidelines. See §15.247(b)(4) and §1.1307(b)(1) of this chapter.

#### **Conducted Power Results**

Mode	Channel	Frequency(MHz)	Peak Conducted Output Power (dBm)
HSDPA (BAND II)	9262	1852.40	24.61
	9400	1880.00	24.79
	9538	1907.60	24.31



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# **EUT Specification**

EUT	GXW Wireless Camera		
Frequency band (Operating)	WLAN: 2.412GHz ~ 2.462GHz   WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz   WLAN: 5.745GHz ~ 5825GHz   Bluetooth: 2.402GHz~ 2.480GHz   UMTS Band II/GSM1900: 1850MHz~1910MHz   UMTS Band V/GSM850: 824MHz~849MHz   Others _		
Device category	Portable (<20cm separation)  Mobile (>20cm separation)  Others		
Exposure classification	Occupational/Controlled exposure $(S = 5mW/cm^2)$ Seneral Population/Uncontrolled exposure $(S=1mW/cm^2)$		
<b>Duty Cycle</b>	100%		
Antenna diversity	Single antenna  Multiple antennas  X Tx diversity  Rx diversity  Tx/Rx diversity		
Max. output power (Including turn tolerance)	24.0dBm (251.189mW)		
Antenna gain (Max)	2.00dBi (Numeric gain:1.58)		
Evaluation applied	<ul><li>✓ MPE Evaluation</li><li>✓ SAR Evaluation</li></ul>		
Note:			
maximum antenna gain is 2 2. For mobile or fixed location separation generally be used	transmitters, no SAR consideration applied. The minimum d is at least 20 cm, even if the calculations indicate that the		
MPE distance would be lesser.			

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### TEST RESULT

No non-compliance noted.

### Calculation

Given 
$$S = \frac{P \times G}{4\Pi d^2}$$

Equation 1

Where d = distance in cm

P = Power in mW

G = Numeric antenna gain

 $S = Power Density in mW/cm^2$ 

#### **Maximum Permissible Exposure**

EUT Output Power=251.189mW

Numeric antenna gain=1.58

Substituting the MPE safe distance using d=20 cm into *Equation 1*:

Fields

The power density  $S = 251.189 \times 1.58 / (4 \Pi \times 400) \text{ cm}^2 = 7.90 * \text{e}^{-2} \text{mW/cm}^2$ 

(For mobile or fixed location transmitters, the maximum power density is  $1.0 \, mW/cm^2$  even if the calculation indicates that the power density would be larger.)