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# OET Bulletin 65 (MPE) Test Report

Report No.: AGC01883140502FE07

FCC ID : 2ACGKWIRELESSSENSOR

APPLICATION

**PURPOSE** 

Wireless Sensor

**PRODUCT** 

**DESIGNATION** 

: ServersCheck

**BRAND NAME** : Wireless Sensor

**TEST MODEL** : ServersCheck Europe

**CLIENT** : June 26, 2014

**DATE OF ISSUE**: Wireless Sensor

**STANDARD(S)** : OET Bulletin 65

**REPORT VERSION**: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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# **Report Revise Record**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	June 26, 2014	Valid	Original Report

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## 1. TEST RESULT CERTIFICATION

Applicant Name:	ServersCheck Europe
Address:	Leuvensesteenweg 613 Unit 4, 1930 ZAVENTEM BELGIUM
Manufacturer Name:	Design Gateway Co., Ltd.
Address:	54 BB Building, 13th Floor (Room 1302), Sukhumvit 21 Rd. (Asoke), Klongtoey-Nu Wattana, Bangkok 10110, Thailand
Product Designation	Wireless Sensor
Brand Name	ServersCheck
Test Model	Wireless Sensor
Hardware Version:	1.00
Software Version:	1.00
Test Standard	OET Bulletin 65
Date of Test:	June 05,2014 to June 25,2014

We (AGC), Attestation of Global Compliance (Shenzhen) Co., Ltd. for compliance with the requirements set forth in the FCC Standard OET Bulletin 65 (Edition 97-01) Supplement C (Edition 01-01). The results of testing in this report apply to the product/system which was tested only.

Tested by

Bart Xie June 26, 2014

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## 2. TECHNICAL INFORMATION

Note: the following data is based on the information by the applicant.

# **EUT DESCRIPTION**

A major technical description of EUT is described as following:

Product Designation:	Wireless Sensor		
Hardware version:	1.00		
Software version:	1.00		
Operation Frequency:	2405.00-2480.00MHz, (Channel Number: 16, Channel Frequency=2405+5(K-1), K=1, 2, 316)		
Modulation:	OQPSK		
Power Supply:	DC3V by button cell		
Antenna Designation:	Integrated Antenna		
Output Power:	10.03dBm Maximum		
Extreme Temp. Tolerance	-10℃ to +55℃		
*** Note: The EUT couldn't be operating normally with higher or lower voltage.			

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#### 3. RF EXPOSURE MEASUREMENT

#### 3.1 INTRODUCTION

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

The 1992 ANSI/IEEE standard (See Listed limit table) specifies a minimum separation distance of 20 cm for performing reliable field measurements to determine adherence to MPE limits.

If the minimum separation distance between a transmitter and nearby persons is more than 20 cm under normal operating conditions, compliance with MPE limits may be determined at such distance from the transmitter. When applicable, operation instructions and prominent warning labels may be used to alert the exposed persons to maintain a specified distance from the transmitter or to limit their exposure durations and usage conditions to ensure compliance.

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# 3.2 FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

## LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (Minutes)
0.3 1.34	614	1.63	(100)*	30
1.34 30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30 300	27.5	0.073	0.2	30
300 1500			f/1500	30
1500 100,000			1.0	30

## \*Note:

- 1. f= Frequency in MHz \* Plane-wave Equivalent Power Density
- 2. The averaging time for General Population/Uncontrolled exposure to fixed transmitters is not applicable for mobile and portable transmitters. See 47 CFR §§2.1091 and 2.1093 on source-based time-averaging requirement for mobile and portable transmitters.

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#### 4. CLASSIFICATION OF THE ASSESSMENT METHODS

According to user manual, The antenna of the product, under normal use condition is at least 20cm away from the body of the user. Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

S=PG/4πR<sup>2</sup>

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator R=distance to the center of radiation of the antenna

## 5. EUT OPERATION CONDITION

Make the EUT to transmit at lowest, middle and highest channel individually.

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## **6. TEST RESULTS**

Note: report the worst result in this part

Antenna Gain=0dBi (Numeric 1.0), π=3.141

Frequency	Output Power	Output Power	Power Density	Power Density Limit	Result
MHz	dBm	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	Pass/Fail
1989.800	10.03	10.72	0.043	1.000	Pass

## Note:

The output power is refer to AGC01883140502FE02.

According to the user manual, the minimum separate distance which used for MPE calculate is 20cm.