RF Exposure Report

Report No.:	SA150623E05
FCC ID:	2ABC8-5898
Test Model:	5898
Received Date:	June 23, 2015
Test Date:	Aug. 19, 2015
Issued Date:	Oct. 02, 2015
Applicant:	Honeywell Security Sensor CoE
Address:	38F, Block A of Galaxy Century Building, No.3069 Caitian Road, Fu Tian District, Shenzhen, China
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.
Test Location (1):	No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.
Test Location (3):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

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Release Control Record

Issue No.	Description	Date Issued
SA150623E05	Original release.	Oct. 02, 2015

1 Certificate of Conformity

Product:	Wireless DUAL TEC Motion Sensor
Brand:	Honeywell
Test Model:	5898
Sample Status:	ENGINEERING SAMPLE
Applicant:	Honeywell Security Sensor CoE
Test Date:	Aug. 19, 2015
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D03 IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Oct. 02, 2015
Phoenix Huang / Specialist

Approved by : _____ , **Date:** Oct. 02, 2015
May Chen / Manager

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

3 Calculation Result of Maximum Power

Frequency Band	Max Field Strength Of Fundamental (dBuV/m)	Max Pout EIRP (dBm)	Max Pout EIRP (mW)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
345 MHz	88.6	-6.63	0.2173	20	0.00004	0.23 (See Note 2)
10.527 GHz	108.9	13.67	23.2809	20	0.00463	1

Note:
1. Pout EIRP (dBm) = Field Strength of Fundamental (dBuV/m) - 95.23 (dB)
2. Limit of Electric field=F/1500

Conclusion:

Both of the 345MHz and 10.527GHz can transmit simultaneously, the formula of calculated the MPE is:

$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \ldots\ldots etc. < 1$

CPD = Calculation power density

LPD = Limit of power density

Therefore, the worst-case situation is 0.00004 / 0.23 + 0.00463 / 1 = 0.005, which is less than “1”. This confirmed that the device comply with FCC 1.1310 MPE limit.

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