

# **RF Exposure Report**

Report No.: SA160704C18

FCC ID: HD5-RC12ABGN

Test Model: RC12ABGN

Received Date: Nov. 05, 2015

Test Date: Nov. 21, 2015 ~ Jul. 07, 2016

**Issued Date:** Jul. 19, 2016

**Applicant:** Honeywell International Inc

Address: 9680 Old Bailes Rd Fort Mill South Carolina 29707 United States

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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33383, TAIWAN (R.O.C.)





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### **Release Control Record**

Issue No.	Description	Date Issued
SA160704C18	Original release.	Jul. 19, 2016

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#### 1 Certificate of Conformity

Product: WLAN board

Brand: Intermec, Honeywell

Test Model: RC12ABGN

Sample Status: Engineering sample

Applicant: Honeywell International Inc

**Test Date:** Nov. 21, 2015 ~ Jul. 07, 2016

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 (October 23, 2015)

**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: Jul. 19, 2016

/wy Lin / Specialist

Approved by : , Date: Jul. 19, 2016

Ken Liu / Senior 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 <sup>2</sup> )	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<sup>2</sup>

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**.

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#### 3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm²)
2412-2462	22.21	2.44	20	0.058	1
5180-5240	17.21	3.70	20	0.025	1
5260-5320	17.25	3.70	20	0.025	1
5500-5700	16.44	3.70	20	0.021	1
5745-5825	15.68	3.70	20	0.017	1
BT EDR	8.00	2.44	20	0.002	1

#### Conclusion:

Both of the WLAN 2.4G & WLAN 5G can transmit simultaneously, the formula of calculated the MPE is: The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz = 0.058 + 0.025 = 0.083

Therefore the maximum calculation of above situation is less than the "1" limit.

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