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
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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Release Control Record

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

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

Ivy 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^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 Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
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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