

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

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

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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

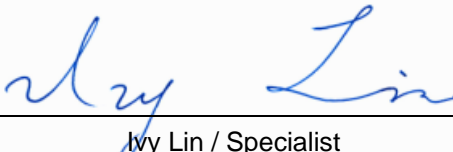
Applicant: Honeywell International Inc

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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 :


Ivy Lin / Specialist

Date:

Jul. 19, 2016

Approved by :


Ken Liu / Senior Manager

Date:

Jul. 19, 2016

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

$$Pd = (P_{out} * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm²

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:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

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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