

RF Exposure Report

Report No.: SA141104C31

FCC ID: H9PCCHUB1

Test Model: CC5000-10

Received Date: Nov. 04, 2014

Test Date: Mar. 26 ~ Apr. 09, 2015

Issued Date: Apr. 23, 2015

Applicant: Symbol Technologies 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
SA141104C31	Original release	Apr. 23, 2015

1 Certificate of Conformity

Product: Customer Concierge

Brand: Symbol

Test Model: CC5000-10

Sample Status: Engineering sample

Applicant: Symbol Technologies Inc

Test Date: Mar. 26 ~ Apr. 09, 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:** Apr. 23, 2015
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Approved by :  , **Date:** Apr. 23, 2015
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/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

WLAN:

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2472	22.86	5.40	20	0.133	1
5180-5240	21.04	3.33	20	0.054	1
5260-5320	20.55	2.81	20	0.043	1
5500-5720	17.56	3.36	20	0.025	1
5745-5825	17.57	3.08	20	0.023	1

BT EDR

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2402~2480	-0.73	5.40	20	0.0006	1

CONCLUSION:

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 = 0.133 + 0.054 = 0.187

Therefore all the maximum calculations of above situations are less than the "1" limit.

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