

RF Exposure Report

Report No.: SA170801E03

FCC ID: SUZ-WD518

Test Model: WD518

Received Date: Aug. 01, 2017

Test Date: Sep. 08, 2017

Issued Date: Sep. 15, 2017

Applicant: Coretronic Corp.

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

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Release Control Record

Issue No.	Description	Date Issued
SA170801E03	Original release.	Sep. 15, 2017

1 Certificate of Conformity

Product: USB WiFi dongle

Brand: DELL,Coretronic

Test Model: WD518

Sample Status: ENGINEERING SAMPLE

Applicant: Coretronic Corp.

Test Date: Sep. 08, 2017

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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 : Wendy Wu , **Date:** Sep. 15, 2017
Wendy Wu / Specialist

Approved by : May Chen , **Date:** Sep. 15, 2017
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				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

f = Frequency in MHz ; *Plane-wave equivalent power density

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**.

2.4 Antenna Gain

Antenna No.	PCB Chain No.	Antenna Gain (dBi)	Frequency range (GHz)	Antenna Type	Connector Type	Cable Length
1	Chian0	0.66	2.4-2.4835	IFA	Soldering	NO
2	Chian1	0.54	2.4-2.4835	IFA	Soldering	NO

2.5 Calculation Result

Frequency Band (MHz)	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	23	199.526	3.61	20	0.09114	1

NOTE:

1. Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 3.61 \text{dBi}$
2. This power included tune-up tolerance range that specified in WD518 tune-up power table.

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