

## RF Exposure Report

**Report No.:** SA180323D03

**FCC ID:** R4V-SDIZ90N

**Test Model:** SDIZ90N

**Received Date:** Mar. 23, 2018

**Issued Date:** Dec. 20, 2018

**Applicant:** Western Digital Technologies, Inc.

**Address:** 951 SanDisk Dr. Milpitas, California, 95035, USA

**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  
(R.O.C.)

**FCC Registration /  
Designation Number:** 198487 / TW2021



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### Release Control Record

Issue No.	Description	Date Issued
SA180323D03	Original release.	Dec. 20, 2018

## 1 Certificate of Conformity

**Product:** iXpand Wireless Charger

**Brand:** SANDISK

**Test Model:** SDIZ90N

**Sample Status:** Engineering sample

**Applicant:** Western Digital Technologies, Inc.

**Test Date:** Nov. 22 ~ Dec. 3, 2018

**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 RF characteristics under the conditions specified in this report.

**Prepared by :**



**Date:** Dec. 20, 2018

Jessica Cheng / Senior Specialist

**Approved by :**



**Date:** Dec. 20, 2018

Rex Lai / Associate Technical 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

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

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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 Calculation Result Of Maximum Conducted Power

Function	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WLAN	28.26	5.13	20	0.4342	1
Bluetooth LE	4.49	2.46	20	0.0010	1

Directional gain =  $2.12\text{dBi} + 10\log(2) = 5.13\text{dBi}$

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