

## RF Exposure Report

**Report No.:** SA150804C20A

**FCC ID:** HDCWLAN194XF2

**Test Model:** WLAN194XF2

**Received Date:** Aug. 04, 2015

**Test Date:** Aug. 31 ~ Sep. 10, 2015

**Issued Date:** Sep. 15, 2015

**Applicant:** Adtran

**Address:** 901 Explorer Boulevard, Huntsville Alabama, United States, 35806-2807

**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
SA150804C20A	Original release	Sep. 15, 2015



**1 Certificate of Conformity**

**Product:** 802.11 an PCIe Module  
**Brand:** Adtran  
**Test Model:** WLAN194XF2  
**Sample Status:** ENGINEERING SAMPLE  
**Applicant:** Adtran  
**Test Date:** Aug. 31 ~ Sep. 10, 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:** Sep. 15, 2015  
Pettie Chen / Senior Specialist

**Approved by :**  , **Date:** Sep. 15, 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 <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

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

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 <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
5260 ~ 5320	20.84	11.77	20	0.363	1
5500 ~ 5700	21.74	11.77	20	0.446	1

Note: Directional gain = 7dBi + 10log(3) = 11.77dBi

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