

## RF Exposure Report

**Report No.:** SA170731C03

**FCC ID:** 2ACTO-7933DMC

**Test Model:** 7933DMC

**Received Date:** Sep. 08, 2017

**Test Date:** Nov. 06 ~ Dec. 01, 2017

**Issued Date:** Dec. 12, 2017

**Applicant:** Sophos Ltd

**Address:** The Pentagon, Abingdon, OX14 3YP, United Kingdom

**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.)

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

**FCC Registration /  
Designation Number:** 788550 / TW0003



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## Table of Contents

<b>Release Control Record</b> .....	<b>3</b>
<b>1 Certificate of Conformity</b> .....	<b>4</b>
<b>2 RF Exposure</b> .....	<b>5</b>
2.1 Limits for Maximum Permissible Exposure (MPE).....	5
2.2 MPE Calculation Formula .....	5
2.3 Classification .....	5
<b>3 Calculation Result of Maximum Conducted Power</b> .....	<b>5</b>



### Release Control Record

Issue No.	Description	Date Issued
SA170731C03	Original release.	Dec. 12, 2017

## 1 Certificate of Conformity

**Product:** 3T3R Wireless 802.11ac/abgn Dual Band Selectable PCIe Module

**Brand:** Sophos

**Test Model:** 7933DMC

**Sample Status:** Engineering sample

**Applicant:** Sophos Ltd

**Test Date:** Nov. 06 ~ Dec. 01, 2017

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

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 :** Celine Chou , **Date:** Dec. 12, 2017  
Celine Chou / Specialist

**Approved by :** Ken Liu , **Date:** Dec. 12, 2017  
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)	TX Function	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	1TX	21.11	3.90	20	0.063	1
	3TX	24.03	8.67	20	0.370	1
5180-5240	1TX	21.55	3.70	20	0.067	1
	3TX	26.20	8.47	20	0.583	1
5745-5825	1TX	21.56	4.40	20	0.078	1
	3TX	26.08	9.17	20	0.666	1

Note:

2412-2462MHz Directional gain = 3.9dBi + 10log(3) = 8.67dBi

5180-5240MHz Directional gain = 3.7dBi + 10log(3) = 8.47dBi

5745-5825MHz Directional gain = 4.4dBi + 10log(3) = 9.17dBi

\* 2.4GHz & 5GHz technology cannot transmit at same time.

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