

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

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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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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 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

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

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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 ²)	Limit (mW/cm ²)
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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