RF EXPOSURE REPORT



Report No.: Q190505S004-FCC-H

Supersede Report No.: N/A

Applicant 3Dconnexion			
Product Name	CADMOUSE PRO WIRELESS		
Model No.	3DX-600065	;	
Serial No.	3DX-700078	}	
Test Standard	FCC 2.1093		
Test Date	May 06~June 12, 2019		
Issue Date	June 13, 2019		
Test Result	Pass Fail		
Equipment complied with the specification			
Equipment did not comply with the specification			
Janon Liang		David Huang	
Aaron Liang		David Huang Checked By	
Test Engineer		Checked by	国的影响和影响

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Test result presented in this test report is applicable to the tested sample only

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety



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1. Report Revision History

Report No.	Report Version	Description	Issue Date
Q190505S004-FCC-H	NONE	Original	June 13, 2019

2. Customer information

Applicant Name	3Dconnexion	
Applicant Add	7, Boulevard du Jardin Exotique, 98000 Monaco	
Manufacturer	3Dconnexion	
Manufacturer Add	7, Boulevard du Jardin Exotique, 98000 Monaco	

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES	
	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park	
Lab Address	South Side of Zhoushi Road, Bao'an District, Shenzhen, Guangdong China	
	518108	
FCC Test Site No.	535293	
IC Test Site No.	4842E-1	
Test Software	EZ-EMC(ver.lcp-03A1)	



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4. Equipment under Test (EUT) Information

Description of EUT:	CADMOUSE PRO WIRELESS

Main Model: 3DX-600065

Serial Model: 3DX-700078

Date EUT received: May 05, 2019

Test Date(s): May 06~June 12, 2019

Antenna Gain:

BLE: 0.5dBi
2.4G: 0.5dBi

2.10.0.002

Antenna Type:

BLE: CERAMIC Antenna

2.4G: CERAMIC Antenna

Type of Modulation:

2.4G: GFSK

RF Operating Frequency (ies):

2.4G: 2404-2477MHz

BLE: 40CH Number of Channels:

2.4G: 5CH

Port: Please refer to user's manual

Battery:

Model:603450

Input Power: Spec: DC 3.7V 1100mAh 4.07Wh

Trade Name: 3Dconnexion

FCC ID: 2AAHQ-CMPW



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5. FCC §2.1093 - Radiofrequency radiation exposure evaluation: portable devices.

5.1 RF Exposure

Standard Requirement:

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] $\cdot [\sqrt{f_{(GHz)}}] \le 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, 16 where

- f_(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is ≤ 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

result = $P\sqrt{F}/D$

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm



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5.2 Test Result

BLE Mode:

Modulation	СН	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	0.83	-0.5±1	0.5	1.122	0.35	3
	Mid	2440	-0.22	-0.5±1	0.5	1.122	0.35	3
	High	2480	-1.25	-0.5±1	0.5	1.122	0.35	3

Result: Compliance

No SAR measurement is required.