RF Exposure Evaluation Report

Product	:	Active Stylus
Trade mark	:	DELL
Model/Type reference	:	SPEN-DEL-02
Serial Number	:	N/A
Report Number	:	EED32M00002002
FCC ID	:	2ABWESPEN-DEL-02
Date of Issue	:	Apr. 13, 2020
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Test result	:	PASS

Prepared for:

Sunwoda Electronic Co., Ltd.
1/F, 2/F of Area A&B&D, 3-9F, Administration Building,
No.2, Yihe Rd, Shilong Community, Shiyan Street,
Bao'an District, Shenzhen, China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Tested By:	mark.chen.	Compiled by:	Smile Zhong
	Mark Chen		Smile Zhong
Reviewed by:	Ware Xin	Approved by:	Sam Chuang
	Ware Xin		Sam Chuang
Date:	Apr. 13, 2020		Check No.:3096308653

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2 Version

Version No.	Date	Description
00	Apr. 13, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	Sunwoda Electronic Co., Ltd.
Address of Applicant:	1/F, 2/F of Area A&B&D, 3-9F, Administration Building, No.2, Yihe Rd, Shilong Community, Shiyan Street, Bao’an District, Shenzhen, China
Manufacturer:	Sunwoda Electronic Co., Ltd.
Address of Manufacturer:	1/F, 2/F of Area A&B&D, 3-9F, Administration Building, No.2, Yihe Rd, Shilong Community, Shiyan Street, Bao’an District, Shenzhen, China
Factory:	Shenzhen Sunwoda Intelligent Hardware Co., Ltd.
Address of Factory:	101, No. 6-6, Yanshan Road, Yanchuan Community, Yanluo Street, Bao’an District, Shenzhen City, Guangdong Province, P.R. China

4.2 General Description of EUT

Product Name:	Active Stylus
Model No.(EUT):	SPEN-DEL-02
Trade Mark:	DELL
EUT Supports Radios application:	5.0 BLE Single mode

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz	
Modulation Type:	GFSK	
Test Power Grade:	Default	
Test Software of EUT:	smartsnippets_toolbox_v5.0.10.2434_windows	
Antenna Type:	Chip antenna	
Antenna Gain:	0.59 dBi	
Power Supply:	Li-ion Cell Battery	30mAh 3.8V
Max Conducted Peak Output Power:	BT5.0: -12.444 dBm	
	The Max Conducted Peak Output Power data refer to the report EED32M00002001	
Sample Received Date:	Jan. 03, 2020	
Sample tested Date:	Jan. 03, 2020 to Mar. 18, 2020	
The tested sample(s) and the sample information are provided by the client.		

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

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)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where
f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
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

5.1.3 EUT RF Exposure

The tune-up power is -12.5 dBm +/- 0.5dB, therefore the highest tune-up power is

-12.00 dBm	(0.06 mW)	@ 2402 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

(0.06mW / 5mm) * (2.402GHz ^0.5)= 0.02

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] * [√f(GHz)] = 0.02< 3.0

Therefore, standalone SAR measurements are not required for both head and body

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00002001 for EUT external and internal photos.

*** End of Report ***