MPE TEST REPORT

Report No.:STS2005030H01

Issued for

Sunwoda Electronic Co., Ltd.

No.2, Yihe Rd., Shilong Community, Shiyan Street, Baoan District, Shenzhen, China

Product Name:	Lenovo E-Color Pen
Brand Name:	Lenovo
Model Name:	Lenovo E-Color Pen
Series Model:	N/A
IC:	23012-ECOLORPEN
Test Standard:	RSS-102 Issue5 SPR-002 Issue1 RSS-216 Issue2

Shenzhen STS Test Services Co., Ltd.
A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail:sts@stsapp.com

TEST RESULT CERTIFICATION

Applicant's Name.....:	Sunwoda Electronic Co., Ltd.
Address.....:	No.2, Yihe Rd., Shilong Community, Shiyan Street, Baoan District, Shenzhen, China
Manufacture's Name.....:	Sunwoda Electronic Co., Ltd.
Address.....:	No.2, Yihe Rd., Shilong Community, Shiyan Street, Baoan District, Shenzhen, China

Product Description

Product Name .....:	Lenovo E-Color Pen
Brand Name .....:	Lenovo
Model Name.....:	Lenovo E-Color Pen
Series Model.....:	N/A
Standards.....:	RSS-102 Issue5 SPR-002 Issue1
Test Procedure .....:	RSS-216 Issue2

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC/IC requirements. And it is applicable only to the tested sample identified in the report.
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Date of receipt of test item .....:	14 May 2020
Date of performance of tests..:	14 May 2020 ~ 15 May 2020
Date of Issue.....:	15 May 2020
Test Result.....:	**Pass**

Testing Engineer : Chris Chen
(Chris Chen)

Technical Manager : Sean She
(Sean she)

Authorized Signatory : Vita Li
(Vita Li)

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	15 May 2020	STS2005030H01	ALL	Initial Issue

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards: SPR-002 Issue1

RSS-102 Issue5 RSS-216 Issue2			
Standard Section	Test Item	Judgment	Remark
SPR-002 Issue1	Electric Field Strength (E) (V/m)	PASS	
	Magnetic Field Strength (H) (A/m)	PASS	

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
FCC test Firm Registration Number: 625569
IC test Firm Registration Number: 12108A
A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ±**U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainly
1	H-filed	±1.2μT
2	E-filed	±16%

1.3 GENERAL DESCRIPTION OF THE EUT

Product Name	Lenovo E-Color Pen
Trade Mark	Lenovo
Model Name	Lenovo E-Color Pen
Equipemnt Category	Non-ISM frequency
Operating frequency	1.8 MHz
Modulation Type	ASK
Antenna Type	Integral Antenna
Antenna number	1
Power supply	DC 3.7V, 50mAh via built-in Lithium Battery
Hardware Version	N/A
Software Version	N/A

Note: Equipment Approval Considerations

Wireless power transfer frequency is below 1 MHz;	Yes
Output power from each primary coil (i.e. transmitter coil in the WPT source device) is less than or equal to 5 W;	Yes
The WPT device is only capable of wireless power transfer between one source and one client at a time. This includes WPT systems with multiple primary coils (i.e. in the WPT source) as long as they only allow wireless power transfer to take place through a single pair of coils at any given time (one in the source and the other in the client). It also includes WPT systems where the source may use two or more overlapping smaller coils to form a fixed charging/powering zone, as long as they only allow wireless power transfer to take place between this zone and a single client device;	Yes
The WPT client device is placed in direct contact with or docked onto the WPT source;	Yes
The maximum coupling surface area of the WPT source is less than or equal to 400 cm2;	Yes
The total leakage fields from all simultaneous transmitting coils are proven to be less than 30% of the applicable Health Canada's Safety Code 6 limits for uncontrolled environments, as set out in RSS-102, at 10 cm from the WPT system in all directions. The total leakage fields shall be calculated or measured based on actual and typical WPT clients of types selected such that they provide worst-case conditions. For WPT source devices with multiple fixed wireless power transfer zones that are only capable of powering/charging one client at a time, this requirement shall be met separately for each zone.	Yes

1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
EMF Meter	NARDA	ELT-400	N-0342	2019.10.20	2020.10.19
EMF probe	NARDA	B-Field Probe	M-0779	2019.10.20	2020.10.19
Broadband field meter	NARDA	NBM 550	E-1275	2019.10.20	2020.10.19
Broadband field probe	NARDA	EF 0391	D-0894	2019.10.20	2020.10.19

2. MAXIMUM PERMISSIBLE EXPOSURE

2.1 MAXIMUM PERMISSIBLE EXPOSURE

Limit of Maximum Permissible Exposure

Limits for Devices Used by the General Public (Uncontrolled Environment)				
Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (S) (W/m^2)	Reference Period (minutes)
0.003-10	83	90	-	Instantaneous*
0.1-10	-	$0.73/f$	-	6**
1.1-10	$87/f^{0.5}$	-	-	6**
10-20	27.46	0.0728	-2	6
20-48	$58.07/f^{0.25}$	$0.1540/f^{0.25}$	$8.944/f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	$3.142 f^{0.3417}$	$0.008335 f^{0.3417}$	$0.02619 f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	$616000/f^{1.2}$
150000-300000	$0.158 f^{0.5}$	$4.21 \times 10^{-4} f^{0.5}$	$6.67 \times 10^{-5} f$	$616000/f^{1.2}$

Note 1: f = frequency in MHz.

* Based on nerve stimulation (NS).

** Based on specific absorption rate (SAR).

SPR-002 Limb Exposure Limit Relaxation Limit

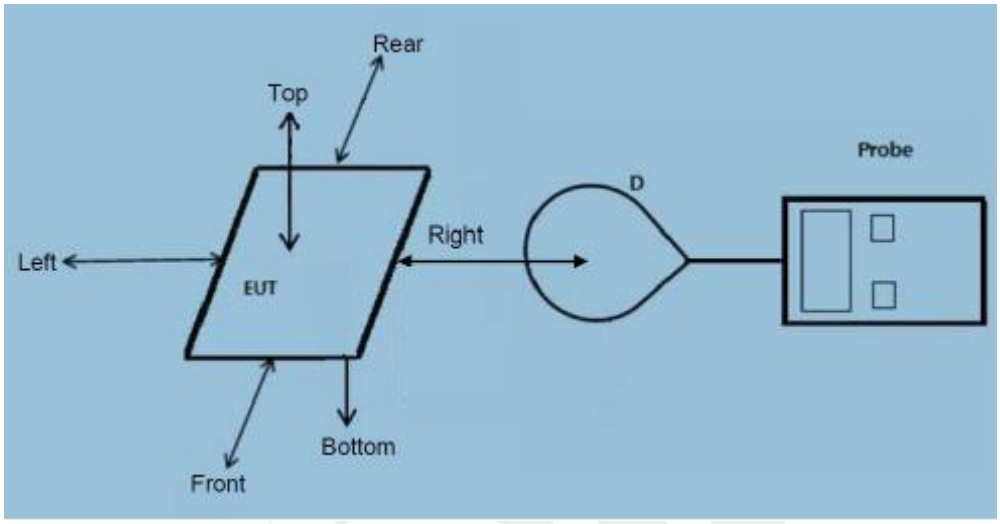
Exposure Condition	Relaxation Factor	Electric Field (V/m r.m.s.)	Magnetic Field (A/m r.m.s.)
Whole Body / Torso / Head	1.0	83	90
Leg	1.5	124.5	135
Arm	2.5	207.5	225
Hand/Foot	5.0	415	450

Note: The values of the electric field and the magnetic field in Table 2 are for indication purposes only and do not supersede the levels specified in RSS-102.

2.2 TEST PROCEDURE

a. For devices designed for typical desktop applications, such a wireless charging pens, RF exposure evaluation should be conducted assuming a user separation distance of 10cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 10cm measured from the center of the probe(s) to the edge of the device.

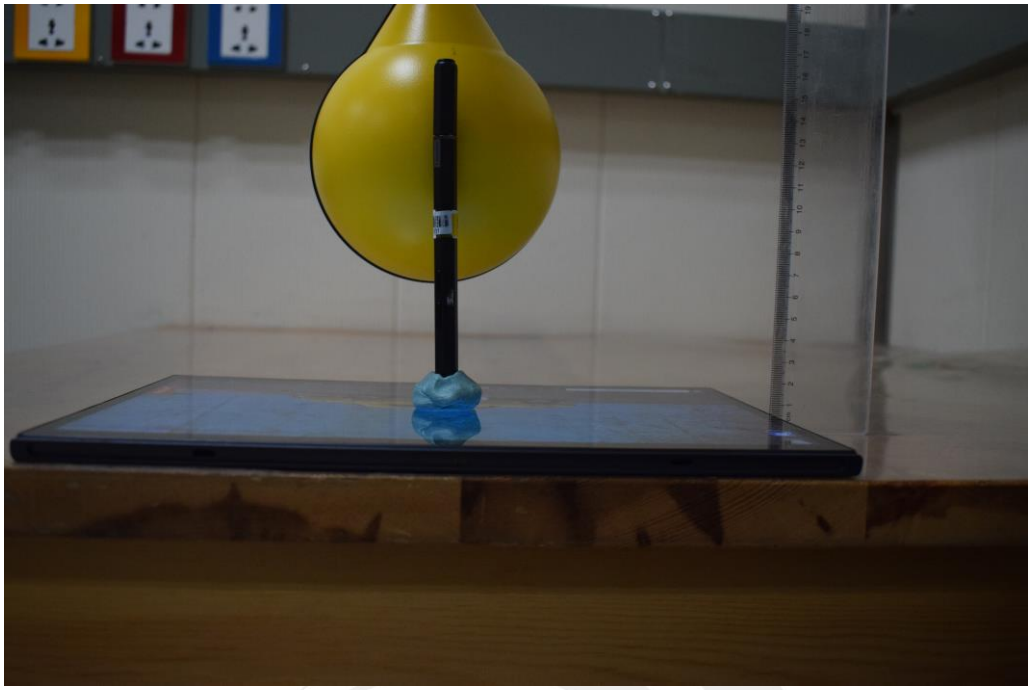
2.3 TEST SETUP



2.4 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE

Maximum Permissible Exposure			
Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
10cm	Front	2.214	0.5528
10cm	Rear	2.118	0.6176
10cm	Left	2.214	0.5856
10cm	Right	2.021	0.6416
10cm	Top	5.789	0.8032
Limit		83	90

MPE SETUP PHOTO



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