



Test Report No.: SA180724W002



RF EXPOSURE REPORT

Product: Smartwatch

Model Name: WATCH X, WATCH X PLUS

FCC ID: O57WATCHX-01

Applicant: Lenovo (Shanghai) Electronics Technology Co., Ltd.

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Manufacturer: LENOVO(BEIJING),LTD

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Report No.: SA180724W002

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Issued Date: Aug. 13, 2018

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA180724W002	Original release	Aug. 13, 2018



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1 CERTIFICATION

PRODUCT: Smartwatch
BRAND NAME: Lenovo
MODEL NAME: WATCH X, WATCH X PLUS
APPLICANT: Lenovo (Shanghai) Electronics Technology Co., Ltd.
TESTED: Jul. 25, 2018 ~ Aug. 12, 2018
TEST SAMPLE: Production Unit
STANDARDS: **FCC Part 2 (Section 2.1093)**
KDB 447498 D01 General RF Exposure Guidance v06
IEEE C95.1:1992

The above equipment has been tested by **BV 7Layers Communications Technology (Shenzhen) Co. Ltd** 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 : , **DATE:** Aug. 13, 2018
(Roger Li / Engineer)

APPROVED BY : , **DATE:** Aug. 13, 2018
(Sam Tung / Manager)



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Smartwatch	
MODEL NAME	WATCH X, WATCH X PLUS	
NOMINAL VOLTAGE	DC 3.8V	
OPERATING TEMPERATURE RANGE	0 ~ 50°C	
MODULATION TYPE	BT_LE	BT-LE(GFSK) for DTS
OPERATING FREQUENCY	BT_LE	2402MHz ~ 2480MHz
ANTENNA GAIN	FPC Antenna with -3dBi gain	
HW VERSION	v01	
SW VERSION	WATCH X	v0.2.4
	WATCH X PLUS	v0.1.9
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable: non-shielded, detachable, 800±30mm	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. The EUT matched the following USB cable:

USB CABLE	
BRAND:	N/A
MODEL:	N/A
SIGNAL LINE:	800±30mm

3. The above models are identical except the appearance / model name / SW Version for marketing purpose.

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

3 RF EXPOSURE

3.1 SAR Test Exclusion Evaluations

According to KDB 447498 D01, the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula.

For the test separation distance ≤ 50 mm

$$\frac{\text{Max. Tune up Power}_{(mW)}}{\text{Min. Test Separation Distance}_{(mm)}} \times \sqrt{f_{(GHz)}} \leq 3.0 \text{ for SAR-1g, } \leq 7.5 \text{ for SAR-10g}$$

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

3.2 SAR TEST EXCLUSION CALCULATION RESULT

Per KDB447498, SAR for wrist exposure is evaluated with the back of the device position in direct contact against the flat phantom, so a distance of 5 mm is applied to determine SAR test exclusion, as below:

Mode / Band	Frequency (GHz)	Max. Tune-up Power (dBm)	Test Position	Separation Distance (mm)	Max. Tune-up (mW)	\sqrt{f} (GHz)	value	SAR Require? limit:7.5(10g)
BT (DSS)	2.48	0.0	Body	5	1.00	1.575	0.3	No

3.3 CLASSIFICATION

Per the calculated result, there is no SAR test require for this device.



3.4 CONDUCTED POWER

BT_LE (GFSK)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	-0.29	N/A
19	2440	-0.54	N/A
39	2480	-0.85	N/A

--END--