

# Test report

Number	T251-0193/23	Project file:	C20230303
		Date:	2023-09-06
		Pages:	5
Product:	<b>Smart Watch</b>		
Type reference:	<b>ECG200</b>		
Ratings:	3,8 V <sub>DC</sub> (Battery powered) Protection class: III		
Trademark:	TeltoHeart		
Applicant:	<b>UAB TELTONIKA TELEMEDIC</b> Naugarduko st. 102, LT-03160 Vilnius, Lithuania		
Manufacturer:	TELTONIKA EMS, UAB Ditvos g. 6, LT-02121 Vilnius, Lithuania		
Place of manufacture:	TELTONIKA EMS, UAB Ditvos g. 6, LT-02121 Vilnius, Lithuania		

## Summary of testing

Testing method:	47 CFR FCC Part 2.1091(b) in conjunction with Part 1.1310(e)(1) and KDB 447498 D01 General RF Exposure Guidance v06
Testing location:	SIQ Ljubljana Mašera-Spasićeva ulica 10, SI-1000 Ljubljana, Slovenia
Remarks:	Date of receipt of test items: 2023-02-07 Number of items tested: 1 Date of performance of tests: 2023-03-08 The test results presented in this report relate only to the items tested. The test items were tested in the condition as received. The product complies with the requirements of the testing methods.

Tested by: Nik Vončina

Approved by: Luka Tosetto

*The report shall not be reproduced except in full.*

CONTENTS	page
<u>1 GENERAL</u>	<u>3</u>
1.1 EQUIPMENT UNDER TEST	3
<u>2 ASSESSMENT PROCEDURE</u>	<u>4</u>
<u>3 MEASUREMENTS / CALCULATIONS</u>	<u>5</u>

## 1 GENERAL

History sheet			
Date	Report No.	Change	Revision
2023-04-05	T251-0193/23	Initial Test Report issued.	--
2023-09-06	T251-0193/23 A1	This test report substitutes previously issued test report T251-0193/23, dated 2023-04-05, due to of the test report. Calculation results were corrected due to typing error.	1.0

### 1.1 Equipment under test

Smart Watch  
Type: ECG200

Environment: Uncontrolled / General Public  
Assessment distance: 5 mm

FCC ID: 2BAIF-ECG200  
Antenna type: Integral antenna  
Antenna gain: 1.1 dBi

## 2 ASSESSMENT PROCEDURE

### According to 2.1091(b):

Determine that they qualify for the exemption with the exposure limits in 1.1310(e)(1) of this chapter:

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(ii) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/ <u>f</u>	2.19/ <u>f</u>	*(180/ <u>f</u> <sup>2</sup> )	<30
30-300	27.5	0.073	0.2	<30
300-1,500			<u>f</u> /1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz. \* = Plane-wave equivalent power density.

### Calculation:

$$P_d = \frac{P_t}{4 * \pi * R^2}$$

### Where:

P<sub>d</sub> = Power density in mW/cm<sup>2</sup>

P<sub>t</sub> = EIRP in mW

π = 3.14

R = Evaluation distance

### KDB 447498 D01 General RF Exposure Guidance v06 Clause 4.3.1. Standalone SAR test exclusion considerations

SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

For frequencies below 100 MHz, the following may be considered for SAR test exclusion:

- For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:  

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

### 3 MEASUREMENTS / CALCULATIONS

According to 2.1093(b):

Frequency (MHz)	Maximum* Power with antenna gain and tune-up (dBm)	Maximum* Power with antenna gain and tune-up (mW)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2402	-0.6	0.87096	0.0000007703	1.0
2440	0	1.00000	0.0000008844	1.0
2480	-0.6	0.87096	0.0000007703	1.0

KDB 447498 D01 General RF Exposure Guidance v06 Clause 4.3.1:

Frequency (MHz)	Maximum* power with tune-up (dBm)	Maximum* power with tune-up (mW)	SAR Test Exclusion Threshold (mW)
2402-2480	0	1.00000	9.525

**Conclusion: PASS**

There is no simultaneous transmission between any other transmitter.