

Test report

Number	T251-0332/23	Project file:	C20211657
		Date:	2023-04-06
		Pages:	5
Product:	Automatic watch winder		
Type reference:	TM001		
Ratings:	5 – 12 Vdc (Supplied over USB-C) Protection class: III		
Trademark:	TIME MACHINE		
Applicant:	Berišaj d.o.o. Vilharjeva ulica 44, SI-1000 Ljubljana		
Manufacturer:	Twenty Five Seven, prodaja in storitve, d.o.o. Vilharjeva ulica 44, SI-1000 Ljubljana		
Place of manufacture:	Twenty Five Seven, prodaja in storitve, d.o.o. Vilharjeva ulica 44, SI-1000 Ljubljana		

Summary of testing

Testing method:	47 CFR FCC Part 1.1307(b)(1)(B) in conjunction with Part 1.1310(d)(2), 2.1093(d)(2) and KDB 447498 D01 General RF Exposure Guidance v06
Testing location:	SIQ Ljubljana Mašera-Spasičeva ulica 10, SI-1000 Ljubljana, Slovenia
Remarks:	Date of receipt of test items: 2021-08-05 Number of items tested: 1 Date of performance of tests: 2022-08-05 - 2022-08-08 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

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1 GENERAL

History sheet			
Date	Report No.	Change	Revision
2023-04-06	T251-0332/23	Initial Test Report issued.	--

1.1 Equipment under test

Automatic watch winder

Type: **TM001**

FCC ID: **2A8DU-TM001**

Environment: Uncontrolled / General Public

Assessment distance: 5 mm

Reviewed test report T251-0613/22 from SIQ Ljubljana.

2 ASSESSMENT PROCEDURE

According to 1.1310(e)(1):

TABLE 1 - LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	* 100	6
3.0-30	1842/f	4.89/f	* 900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	* 100	30
1.34-30	824/f	2.19/f	* 180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

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:

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

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz

$\{[\text{Power allowed at numeric threshold for 50 mm in step above}]] + [(\text{test separation distance} - 50 \text{ mm}) \cdot (f_{(\text{MHz})}/150)]\} \text{ mW}$

Above step multiplied by $[1 + \log(100/f_{(\text{MHz})})]$

3 MEASUREMENTS / CALCULATIONS

According to 1.1307(b)(3)(A) and 2.1091(c)(1):

Frequency (MHz)	Maximum* power with tune-up (dBm)	Maximum* power with tune-up (mW)	Power Density (mW/cm ²)	Limit (mW/cm)
2402-2480	7.2	5.248	0.000004642	1

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	7.2	5.248	1918

* Gated power with Duty Cycle calculated in

** maximum tolerance provided from manufacturer is ± 2 dB.

Conclusion: PASS; SAR Evaluation is not required due to SAR Test Exclusion Thresholds are met.

There is no simultaneous transmission between any other transmitter.