ICS 39.040.20
CCS Y 11

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 38021-2019

Analogue quartz clocks - Timing accuracy

Issued on: August 30, 2019 **Implemented on: March 1, 2020**

Issued by: State Administration for Market Regulation, China National Standardization Administration

Table of Contents

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to ISO 19235.2015 "pointer type quartz clock travel time accuracy".

This standard was proposed by the China Light Industry Association.

This standard is under the jurisdiction of the National Clock Standardization Technical Committee (SAC/TC160).

This standard was drafted. Shenzhen Jinbawang Precision Electronics Co., Ltd., Shenzhen Titan Clock Technology Co., Ltd., Xi'an Light Industry Clock

Table Research Co., Ltd., Yantai Polaris State-owned Holdings Co., Ltd., Shengzhou Hengli Electronics Co., Ltd., Changzhou Jingke Industrial Co., Ltd.

Fujian Shangrun Precision Instrument Co., Ltd., Fujian Shengbang Electronic Technology Co., Ltd., Guangzhou Fuda Watch Industry Co., Ltd., Fujian Ruida

Seiko Co., Ltd., Fujian Jibang Electronics Co., Ltd., Yantai Long-lasting Watch Group Co., Ltd.

1 Scope

This standard specifies the basic parameters, requirements and test methods for the accuracy of the walking time of the quartz clock (hereinafter referred to as "quartz clock").

This standard is applicable to the quartz quartz clock and wall clock with crystal frequency of 32768Hz and nominal voltage of DC1.5V.

The bell heart can also be used as reference.

This standard does not apply to the following quartz clocks.

---Special use of the clock on aircraft, ships, vehicles and other equipment;

---The clock matched with other products;

--- Radio clock.

2 Terms and definitions

The following terms and definitions apply to this document.

2.1

Average instantaneous difference melaninstantaneousrate

??m

The arithmetic mean of the three instantaneous differences of the quartz clocks tested in consecutive 3d, in units of "s/d" or "s/month".

2.2

Voltage coefficient

CU

The rate of change of the instantaneous difference in the quartz clock due to changes in the supply voltage.

2.3

Temperature coefficient

Ct

The rate of change of the instantaneous difference in the quartz clock due to temperature changes.

2.4

Nominal voltage nominalvoltage

Un

The voltage identified by the movement.

3.1 Average instantaneous difference ??m

After the quartz clock is continuously transported for 3 days, the average instantaneous difference should be in the range of -1.0 s/d to 1.0 s/d.

3.2 Voltage coefficient CU

The voltage coefficient CU should be in the range of -1.0 s/(d . V) ~ 1.0 s/(d . V).