

ICS 17.220
CCS L 85



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 15151.1-1994

Replacing GB/T 15151.1-1994; GB/T 15151.2-1994

**General specification of frequency counter
(English Translation)**

Issued on: January 1, 1970

Implemented on: January 1, 1970

Issued by: Standardization Administration of China

Table of Contents

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 Requirements

4.1 Appearance and structure

4.2 Security

4.3 Environmental Adaptability

4.4 Packaging transport

4.5 Electromagnetic Compatibility

4.6 Power

4.7 Reliability

4.8 Size and Weight

4.9 Warm-up time

4.10 Digital Interface

4.11 Function

4.12 Performance

Test Method 5

5.1 Appearance and structure

5.2 Safety Test

5.3 Environmental Adaptability Test

5.4 Transportation test

5.5 Electromagnetic compatibility test

5.6 Power Test

5.7 Reliability Test

5.8 Size and Weight

5.9 Warm-up Time Check

5.10 Digital interface checks

5.11 Function test

5.12 Performance test

6 Quality Inspection Rule

6.1 Inspection classification

6.2 Test Item

6.3 Sampling and acceptance criteria

7 Signs, packaging, storage

Description 7.1 Instrument flag

Box 7.2 content of the flag

Foreword

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

This standard replaces GB/T 15151.1-1994 "frequency counter general technical conditions" and GB/T 15151.2-1994 "frequency counting Test Methods. " this standard and GB/T 15151.1-1994 "frequency counter general technical conditions" and GB/T 15151.2-1994 "frequency counter Test methods "compared to the main changes are as follows.

- Original two standards into one standard;
- Delete the reference standard and this standard is no longer used in the existing terms and definitions;
- Remove the "adaptive waveform" "Measurement indicates" "Self-Test" "Coupling" "low pass filter" "BCD code output," "special requirements" "Other Requirements "requirements and test methods; (see GB/T 15151.1-1994 in 4.5,4.9,4.11,4.18,4.20,4.26);
- Added "frequency modulation (FM) tolerance," "automatic amplitude recognition" "Day timebase frequency fluctuation" "frequency stability" base date "stable timebase Time "requirements and test methods (see 4.12,5.12);
- Updated the "Security" "environmental compatibility", "Transport Packaging", "Electromagnetic Compatibility" "Power," "reliability" "Dimensions and weight" requirement and test methods (see Chapter 4, Chapter 5);
- Update "Quality inspection rules" in the part (see Chapter 6).

The standard proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This standard by the National Standardization Technical Committee Electronic Measuring Instruments (SAC/TC153) centralized.

This standard was drafted. China Electronics Technology Group Corporation Research Institute 11.

1 Scope

This standard specifies the frequency counter of requirements, test methods, quality inspection rules.

This standard applies to all types of frequency counter, frequency counter is a common basis for product design, production, testing and inspection, as well as the development phase Frequency counter product standards should be based.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191-2008 Packaging - Pictorial signs GB/T 6587-2012 General specification for electronic measuring instruments GB/T 11464-1989 Electronic Measuring Instruments terms GB/T 12274-1990 General specification quartz crystal oscillators (for certification) SJ/T 10638-1995 quartz oscillator test methods

3 Terms and Definitions

GB/T 11464-1989 and GB/T 12274-1990 and as defined in the following terms and definitions for use in the present document.

Frequency counter One kind of electronic learning methods to measure signal frequency and can display the measurement results of the instrument, including universal frequency counter, microwave frequency counter Number and pulse frequency counters.

Traditional way conventionalmode Frequency counter measurement gate signal and the internal time base synchronization signal a phase measurement.

Countdown mode reciprocalmode Way of measuring frequency counter measurement gate signal and external input signal synchronization.

Minimum (bits) significant figures leastsignificantdigit; LSD Frequency counter shows the lowest (bit) unit value of significant figures.

Trigger error Frequency counter work, due to noise, the trigger level jitter caused by measurement error.

4.1 Appearance and structure

Frequency counter product surface should be smooth, no glitches, no obvious mechanical damage and damage to the phenomenon of the coating, the structure should be complete.