

ICS 31.180
CCS L 30



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

GB/T 33772.2-2025

**Quality assessment systems - Part 2: Selection and use of
sampling plans for inspection of electronic components and
packages**

(English Translation)

Issued on: May 30, 2025

Implemented on: December 1, 2025

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

Table of Contents

Preface

Introduction

1 Scope

2 Normative references

3 Terms and Definitions

4 Sampling system

5 Acceptance and rejection

6 Statistical Verification Quality Limit (SVQL)

Appendix A (Informative) Statistical Verification Quality Limit (SVQL) for Estimating the Defective Rate Per Million ($\times 10^{-6}$) at a Confidence Level of 60%

Appendix B (Informative) Relationship between this document and GB/T 2828.1-2012

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 2 of GB/T 33772 "Quality Assessment Systems". GB/T 33772 has been published in the following parts.

--- Part 1: Statistics and analysis of defects on printed board assemblies;

--- Part 2: Selection and use of sampling plans for inspection of electronic components and packages.

This document is modified to adopt IEC 61193-2:2007 "Quality assessment systems - Part 2: Sampling methods for inspection of electronic components and packages" the selection and use of solutions.

This document has made the following structural adjustments compared to IEC 61193-2:2007.

---Term 3.1 corresponds to 3.6 of IEC 61193-2:2007;

--- Deleted Appendix C of IEC 61193-2:2007.

The technical differences between this document and IEC 61193-2:2007 and their reasons are as follows.

--- The normative reference GB/T 2036 replaces IEC 60194 (see Chapter 3) to adapt to my country's technical conditions and increase operability Sexuality;

--- Due to the definitions in GB/T 2036 and GB/T 3358.2-2009, some terms in IEC 61193-2:2007 have been deleted and its definition (see 3.1 to 3.5 of IEC 61193-2:2007).

The following editorial changes were made to this document.

--- Annex C (informative) of IEC 61193-2:2007 has been deleted as it is irrelevant to the description of the main text.

Introduction

GB/T 33772 "Quality Assessment System" is intended to consist of three parts.

--- Part 1: Statistics and analysis of defects on printed board assemblies. The purpose is to specify various processing the statistical and analytical methods for defects also specify two methods for collecting defect parts per million (ppm) data.

--- Part 2: Selection and use of sampling plans for inspection of electronic components and packages.

Provide sampling systems and plans for the inspection of assembled parts, suitable for products produced under effective process control to prevent the occurrence of unqualified products.

outflow.

--- Part 3: Selection and use of sampling plans for final product inspection and process monitoring of printed boards and laminates.

The selection and use of sampling plans for attribute inspection for final product inspection and process monitoring of printed boards and laminates, including sampling Application of methods, attribute classification, inspection plans and sampling plans, etc.

This document states that in order to obtain high-quality products, process control (such as 100% testing of key characteristics) and statistical methods are required.

To stabilize, monitor and improve process flows.

Sampling inspection is one of the methods used to verify the following.

a) Whether process control is effective;

b) Customer or third party assessment of supplier product quality levels.

At present, the quality level of products used in electronic and electrical equipment must reach or approach zero defects. However, if only sampling inspection is used to evaluate the near the quality level of zero defects will lead to an unreasonable increase in inspection costs. Therefore, process control and zero acceptance number sampling are usually

combined.

Method used in combination.

Quality assessment system Part 2: Electronic components and Selection and use of sampling plans for package inspection

1 Scope

This document specifies requirements for the selection and use of sampling plans for the inspection of electronic components and packages.

This document applies to the inspection of electronic components and packages used in electronic and electrical products.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 2036 Terminology for printed circuits GB/T 2828.1-2012 Sampling procedures for inspection by attributes Part 1: Sampling for batch inspection based on acceptance quality limit (AQL) Plan (ISO 2859-1:1999, IDT) GB/T 3358.2-2009 Statistical vocabulary and symbols Part 2: Applied statistics (ISO 3534-2:2006, IDT)

3 Terms and definitions

The terms and definitions defined in GB/T 2036, GB/T 2828.1-2012, GB/T 3358.2-2009 and the following apply to this document.

Products produced by the same manufacturer using the same materials, manufacturing processes and methods.

Note: Products are structurally similar even if there are differences in enclosure size and ratings.
The results can be combined.

4.1 Batch formation and identification

Products should be grouped into identifiable lots or sub-lots. Where practicable, each lot should consist of a single type, grade, category, size and the components are produced at substantially the same time and under the same conditions.

4.2.1 Method of sampling

The samples shall be selected by simple random sampling (see 1.2.24 of GB/T 3358.2-2009).

If the sample size of each sub-batch or stratum is smaller than that of the sub-batch or stratum, a stratified sampling method should be used according to reasonable standards so that the sub-sample size of each sub-batch or stratum is consistent with the size of the sub-batch or stratum.

Small is proportional.