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

GB/T 5080.2-2012

Replacing GB/T 5080.2-1986

Reliability testing -- Part 2: Design of test cycles

可靠性试验 第2部分：试验周期设计

(English Translation)

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Foreword

GB/T 5080 "reliability test" is divided into six parts.

--- Part 1. Test conditions and statistical test principles;

- Part 2. Design of test cycles;
- Part 4. point estimation of exponential distribution case, confidence intervals, prediction intervals and tolerance statistical methods;
- Part 5. test plans for success ratio;
- Part 6. constant failure rate assumption validation;
- Part 7. constant failure rate assumption and the average failure rate under No authentication protocol downtime.

NOTE: The above listed reason for the lack of Part 3, because corresponding to the respective portion of the IEC is the national standard GB/T 7288.

This section GB/T 5080 Part 2.

This section according to the rules GB/T 1.1-2009 and GB/T 20000.2-2009 given draft.

This Part replaces GB/T 5080.2-1986 "Equipment reliability testing test cycle design guidelines." This revision no technology within on capacity changes.

This section uses the translation method identical with IEC 605-2:1994 "Equipment reliability testing - Part 2. Test cycles design guidelines." this section made editorial changes, edit difference is mainly reflected in.

- The standard heading "Equipment reliability testing test cycle design guidelines" to "Reliability Test - Part 2. Test Week Design ";
- Throughout the "equipment" to "products";
- To increase the content of "Normative documents".

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the National Electrical Electronic Product Reliability and Maintainability Standardization Technical Committee (SAC/TC24) centralized.

This section drafted by. Ministry of Information Industry Institute of Electronics and fifth, Peking University.

1 Scope

This section applies to GB/T 5080.1-2012 8.1 and 8.2 of the product is not repaired or reconditioned product reliability test work Environmental conditions and test cycle design.

Preferred test conditions see GB/T 7288-1987 "Equipment reliability testing - Preferred test conditions." When the "recommended test strip Member "is not applicable, this section gives a general program designed to test cycle, it is required to accurately simulate actual

conditions of use for certain products Test by test cycle design provides detailed steps and methods.

Under this part of the design of the experiment, generally can not test instead of the usual features, environmental testing and qualification tests.

In some cases, before applying the test period in this part of the process designed to test the need for pre-exposure test, and Determining whether or not to pre-exposure test is not in accordance with this description.

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 2421 ~ 2424 series of electric and electronic products environmental testing procedures (idt IEC 60068) GB/T 2900.13-2008 Electrotechnical terminology credibility and quality of service (IEC 60050 (191).1990, IDT) GB/T 4796-2008 electric and electronic products Classification of environmental conditions - Part 1. Environmental parameters and their severities (IEC 60721-1.

2002, IDT)

GB/T 4797 (all parts), electric and electronic products natural environmental conditions (IEC 60721-2, IDT) GB/T 4798 (all parts), electric and electronic products application environment conditions (IEC 60721-3, IDT) GB/T 5080.1-1986 Equipment reliability testing - General requirements (idt IEC 605-1. 1978)

3 Terms and Definitions

The following terms and definitions apply to this document.

Active phase

The product itself have the condition, status and use of the product is subjected to external environmental stress conditions.

Environmental conditions environmentalcondition Within a certain time, the combination of environmental parameters and their severities each constituted from the outside acting on the product physical and chemical conditions.

Working conditions operatingcondition Conditions and the product related to the operation by the combination of operating parameters and their severities posed.