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**Dependability management -- Application guide -- Guide to the
specification of dependability requirement**

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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 IEC 60300-3-4.2007 "Trust Management Part 3-4. Application Guide Credibility

Seeking a guide to the specification.

The documents of our country that have a consistent correspondence with the international documents referenced in this standard are as follows.

---GB/T 2900.13-2008 Electrotechnical terminology credibility and quality of service (IEC 60050-191.1990, IDT)

--- GB/T 5080.1-2012 Reliability test Part 1. Test conditions and statistical test principles (IEC 60300-3-5.

2001, IDT)

---GB/T 5080.4-1985 Point Estimation and Interval Estimation Method for Reliability Test of Equipment Reliability Test (Index)

Cloth) (IEC 60605-4. 1978, IDT)

---GB/T 5080.5-1985 Equipment reliability test success rate verification test plan (IEC 60605-5. 1982, IDT)

---GB/T 5080.6-1996 Equipment reliability test validity test for constant failure rate assumption (IEC 60605-6.1989,

IDT)

---GB/T 5080.7-1986 Equipment reliability test failure rate under the assumption of failure rate and the average time between failures

Test protocol (IEC 60605-7. 1978, IDT)

---GB/T 5081-1985 Guidelines for the collection of reliability, availability and maintainability

of on-site work in electronic products (IEC 362.

1971, IDT)

---GB/T 6992.2-1997 Credibility Management Part 2. Credibility Outline Elements and Work Items (IEC 60300-2.

1995, IDT)

---GB/T 9414.1-2012 Maintainability Part 1. Application Guide (IEC 60300-3-10.2001, IDT)

---GB/T 9414.2-2012 Maintainability Part 2. Design and development phase maintainability requirements and research (IEC 60706-2.

2006, IDT)

---GB/T 9414.3-2012 Maintainability Part 3. Verification and collection, analysis and presentation of data (IEC 60706-3.

2006, IDT)

--- GB/T 9414.7-2000 Equipment maintainability guidelines Part IV. Diagnostic tests (IEC 60706-5.1994, IDT)

---GB/T 9414.9-2017 Maintainability Part 9. Maintenance and repair support (IEC 60300-3-14.2004, IDT)

---GB/T 15174-2017 Reliability Growth Outline (IEC 61014.2003, IDT)

---GB/T 15647-1995 Steady-state availability verification test method (IEC 61070.1991, IDT)

---GB/T 34987-2017 Weibull Analysis (IEC 61649.2008, IDT)

---GB/T 20438.1-2006 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 1. General

Seeking (IEC 61508-1.1998, IDT)

--- GB/T 20438.2-2006 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2. Electrical /

Requirements for electronic/programmable electronic safety related systems (IEC 61508-2.2000, IDT)

---GB/T 20438.3-2006 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 3

Seeking (IEC 61508-3.1998, IDT)

--- GB/T 20438.4-2006 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 4. Definitions and

Abbreviations (IEC 61508-4.1998, IDT)

--- GB/T 20438.5-2006 Functional safety of electrical/electronic/programmable electronic safety related systems - Part 5

Example of a method for full integrity level (IEC 61508-5.1998, IDT)

---GB/T 20438.6-2006 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 6

Application Guide for GB/T 20438.2 and GB/T 20438.3 (IEC 61508-6.2000, IDT)

--- GB/T 20438.7-2006 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 7

Overview of measures (IEC 61508-7..2000, IDT)

---GB /Z 29638-2013 Functional safety function safety concept of electrical/electronic/programmable electronic safety related systems and

Overview of GB/T 20438 Series (IEC /T R61508-0.2005, IDT)

This standard has made the following editorial changes.

--- China's credibility standard system is currently based on an independent standard system structure, in line with China's existing credibility standards system,

Remove the "Parts 3-4" from the standard name.

Introduction

Reliability, maintainability and availability are the basic characteristics of the system. These features, together with maintenance support, constitute a system we know well.

Believe.

In the system, any characteristic of credibility is important, as other characteristics of the system's technical indicators, size and quality, etc.

Define and define in the same way.

The level of reliability, maintainability, availability, and maintenance support of the system depends on the conditions of use of the system, ie the tasks of the system.

section. When system credibility requirements are specified, it is essential to clarify the future storage, transportation, installation and use conditions of the system. important

It is necessary to consider the conditions under which the system operates, as well as the system maintenance strategy and maintenance support organization.

In order to assess the magnitude of the system's credibility characteristics, the application

of statistical models is essential.

As with other performance characteristics of the system, the credibility feature can be specified in three ways.

- 1) specifications written by the supplier;
- 2) specifications prepared by the purchaser;
- 3) Specifications negotiated or prepared by the supplier and the purchaser.

This standard applies to all three types of specifications described above.

IEC 62347 deals with the definition of the system and its components and how these elements are defined. This standard supplements IEC 62347 and

The credibility requirements of these elements are specified. The primary task of IEC 62347 is to identify system requirements from a system engineering perspective and

A process for converting a purchaser's perspective on the application of a system into a systematically engineered technical overview. IEC 62347 emphasizes the structure of functional implementations and

Functional design, through the appropriate selection of hardware, software and personnel factors to achieve the system-related credibility requirements of the purchaser.

Credibility management

Application Guide Credibility Requirements Specification Guide

1 Scope

This standard gives guidelines for the credibility characteristics specified in the specification, as well as methods and criteria for verification and validation of these characteristics.

This standard includes the following.

- Recommendations for specifying quantitative and qualitative requirements for reliability, maintainability, availability and maintenance support;
- System purchaser's advice on how to ensure that the supplier meets the specified requirements;
- Help the supplier to meet the buyer's requirements.

Other documents, such as laws and government regulations, may also be required by the system, except for any specifications consistent with this standard.

Should be considered for adoption.