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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 5095.2307-2021

Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 23-7: Screening and filtering tests - Test 23g: Effective transfer impedance of connectors

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Foreword

GB/T 5095 "Basic test procedures and measurement methods for electromechanical components for electronic equipment" is divided into several parts according to the test methods.

Part 23 of GB/T 5095 is shielding and filtering test. The parts that have been released or planned to be released are as follows.

---Part 23-3.Shielding and Filtering Test Test 23c. The shielding effect line injection method of connectors and accessories;

---Part 23-4.Shielding and filtering test test 23d. reflection of transmission line in the time domain;

--- Part 23-7.Shielding and Filtering Test Test 23g. The effective transfer impedance of the connector.

This part is part 23-7 of GB/T 5095.

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

The translation method used in this part is equivalent to IEC 60512-23-7.2005 "Connector Test and Measurement for Electronic Equipment Part 23-7"

Points. shielding and filtering test test 23g. the effective transfer impedance of the connector".

The Chinese documents that have a consistent correspondence with the international documents cited in this section are as follows.

---GB/T 4210-2015 Electrotechnical terminology electromechanical components for electronic equipment (IEC 60050-581.2008, IDT);

---GB/T 5095.2303-2021 Basic test procedures and measurement methods of electromechanical components for electronic equipment Part 23-3.Screen

Shielding and filtering test Test 23c. The shielding effect line injection method of connectors and accessories (IEC 60512-23-3.2018,

IDT);

---GB/T 17737.1-2013 Coaxial communication cable Part 1.General specification General rules, definitions, requirements (IEC 61196-1.

2005, IDT).

This section has made the following editorial changes.

---The standard name is composed of "Connector Test and Measurement for Electronic Equipment Part 23-7.Shielding and Filtering Test Test 23g. Connecting

The Effective Transfer Impedance of Connectors is revised to Part 23-7 of Basic Test Procedures and Measurement Methods for Electromechanical Components for Electronic Equipment

Points. shielding and filtering test test 23g. effective transfer impedance of the connector";

---Imperial units are converted to metric units.

1 Scope

This part of GB/T 5095 specifies the non-circular multi-core electrical short-circuit connector with the highest frequency shielded at 1GHz, which is measured by a network analyzer.

The effective (surface) transfer impedance ZTE (expressed in ohm) is a test method to evaluate the shielding effect. This method is based on GB/T 17737.1-

Based on the wire injection method specified in.2013, specific types of injection wires are

used to adapt to various shapes of connectors. The method described below

In, due to the use of a specific test device, the test is not the shield of the connector itself, but the two combined connectors (male

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 2421.1-2008 Overview and Guidelines for Environmental Testing of Electrical and Electronic Products (IEC 60068-1.1988, IDT)

IEC 60050-581 International Electrotechnical Vocabulary (IEV) Chapter 581.Electromechanical components for electronic equipment [InternationalElectro-

technicalVocabulary(IEV)-Chapter581.Electromechanicalcomponentsforelectronicequipment]

IEC 60512-1-100 Basic test procedures and measurement methods for electromechanical components for electronic equipment Part 1-100.General application

Publication (Electromechanicalcomponentsforelectronicequipment-Basictestingproceduresandmeas-

uringmethods-Part 1-100.General-Applicablepublications)

IEC 60512-23-3 Basic test procedures and measurement methods for electromechanical components for electronic equipment Part 23-3.Shielding and filtering tests

Test 23c. Shielding effect of connectors and accessories (Electromechanical components for electronic equipment-

Basictestingproceduresandmeasuringmethods-Part 23-3.Screeningandfilteringtests-Test23c.

Screeningeffectivenessofconnectorsandaccessories)

IEC 61196-1..1995 Radio-frequency cables Part 1.General specifications, general rules, definitions, requirements (Radio-frequencycables-

Part 1.Genericspecification-General,definitions,requirementsandtestmethods)

3 Terms and definitions

The following terms and definitions defined by IEC 60050-581 apply to this document.

3.1

Internal and external circuit inner and outer circuit

The internal circuit consists of the shield and conductor of the test sample. In formulas and diagrams, the measured or calculated value of the internal circuit can be subscripted

The symbol indicating 1, such as. U1, Z1 or I1.

The external circuit consists of the shielded surface and the internal surface around the test fixture box. In the formulas and diagrams, the measured value or meter of the external circuit

The calculated value can be indicated by a symbol with a subscript of 2, such as. U2, Z2 or I2.