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

GB/T 29074-2012

Requirements for the qualification of space components

宇航元器件鉴定要求

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Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. The standard proposed by China Aerospace Science and Technology Corporation. This standard by the National Aerospace Technology and Application of Standardization Technical Committee (SAC/TC425) centralized. This standard drafting unit. China Academy of Space Technology. The main drafters of this standard. Wang Jianguo, Wang Xia, Zhang Hongqi, Zhuheng Jing, Han Zhen water, Li Haiyan.

This standard belongs to China Aerospace national standards. China Aerospace national standards applicable to national standards in the field of aerospace and revision Management, covering the management of space, space technology, space applications and services of the three fields, is to guide spacecraft and launch vehicle project management, engineering research System, space launch services, in-orbit satellite applications based activities. - Lifting aerospace electronic components of system performance based on performance indicators based on its quality level to determine the long-term stability and Aerospace supply is an important issue that must be addressed with management components. With the rapid development of technology components, high integration, high performance, High index components after another, but if it meets the requirements of aerospace applications, the need for identification of the work in accordance with the relevant guidelines. Meanwhile, the international Space cooperation increasingly widespread in the selection of certification components also need to have a standardized and unified identification guidelines. Therefore, further guidance and regulation Fan aerospace components with identification, to ensure product quality standard is formulated. Aerospace Component identification requirements

1 Scope

China's national requirements for the qualification of space electronic components. It specifies the requirements by which an electronic component is qualified for use on a spacecraft or a launch vehicle. A component on a spacecraft cannot be replaced, cannot be inspected, and works in an environment that does not exist on the ground: vacuum, wide

temperature cycling, launch vibration and shock, and a radiation field that degrades semiconductors continuously and occasionally upsets or destroys them outright with a single heavy ion. It also has to work for fifteen years without maintenance. Qualification is the process that establishes, before flight, that a particular part from a particular manufacturer built to a particular process can do that. What makes it difficult is not the testing but the pace of the industry supplying the parts. The introduction is explicit about the tension: the performance of a space electronic system rests on the performance of its components, and the quality level of those components determines whether they can be supplied stably over the long term - while component technology moves towards ever higher integration and performance on a commercial cycle measured in months. A part qualified for space is a part frozen in a process that the manufacturer has every commercial reason to change, and a programme that takes a decade to fly cannot follow the market. So the standard sets out the qualification requirements as a management problem as much as a technical one: the classification and quality levels, the qualification testing, the process and manufacturer assessment, the treatment of changes to a qualified part, the requalification triggers, and the documentation that makes a qualification transferable between programmes. Issued on 31 December 2012 and in force since 1 July 2013.

This standard specifies the conditions identified aerospace components, assessment requirements, qualification tests and technical requirements for the identification and management of the whole process. This standard applies to the identification of aerospace components accreditation bodies of domestic aerospace components, other components in case of need identified When may refer.

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, undated references, the latest edition (including any amendments) applies to this document.

GB/T 19000 Quality management systems Fundamentals and vocabulary

GB/T 19001 Quality Management System Requirements

GB/T 19011 quality and (or) environmental management systems auditing

3 Terms and Definitions

GB/T 19000 and defined by the following terms and definitions apply to this document.

3.1 Process Validation file process identification document All files associated with a particular production process control-related components, including.

- a) production flow chart;
- b) process specifications;

- c) inspection procedures;
- d) structural components (including pictures);
- e) test procedure;
- f) production plant related to quality control documents.

3.2 Inconsistent non-conformance Deviation and the applicable component of a file properties.

4 Abbreviations

The following abbreviations apply to this document. CA

- construction analysis, structural analysis; DPA
- destructive physical analysis, destructive physical analysis; PID
- process identification document, process validation documents; QDSC
- qualification department for space components, aerospace components accreditation bodies; QPLS
- qualified parts lists for space, aerospace components accreditation directory. * * *