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

GB/T 46556-2025

**Application grade classification and requirements for
aerospace components**

宇航用元器件应用等级分级及要求

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Aerospace Technology and Its Applications (SAC/TC425). This document was drafted by: China Academy of Space Technology, China Academy of Launch Vehicle Technology, and China Star Network System Research Institute Co., Ltd. The company, China Aerospace Science and Technology Corporation Commercial Satellite Co., Ltd., and Shanghai Microsatellite Innovation Research Institute of Chinese Academy of Sciences. The main drafters of this document are. Xiao Bo, Li Qiang, Zhang Lei, Li Peilei, Su Yu, Chang Mingchao, Gu Hantian, Jia Xiao, Xiong Shengyang, Peng Lei, and Yang Chenhui. Jiang Maogong, Li Jiang, Feng Yanjun, Ni Weixing, Cui Shuai, Lü Qianqian, Song Chunrui, Jia Qiuyang. Application grade classification and requirements for aerospace components

1 Scope

GB/T 46556-2025 is the Chinese national standard covering the grades into which a component is placed for space use - by how critical the function is and how long the

mission lasts - and the screening, qualification and traceability each grade demands. First edition, with the process control standard GB/T 46560-2025. It was issued on 2 December 2025 and has been in force since 1 April 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the basic requirements, implementation procedures and requirements, and traceability requirements for the application level classification of aerospace components. This document applies to the management of application level classification for aerospace components. The management of application level classification for ground equipment components is subject to the same guidelines. use.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 7826 System Reliability Analysis Techniques - Failure Mode and Effects Analysis (FMEA) Procedure

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Application grade Based on the project in which the component is located and the application risks that the component's individual component location can withstand, the selection, warranty, and... Different levels of application requirements.

4.Basic Requirements According to the development requirements of aerospace projects, the research and development unit should, based on the different requirements for component assurance for different mission types, determine the appropriate components for the project. The system categorizes components by application level, clarifying the selection and warranty requirements for components under different application levels, thus guiding the warranty of aerospace components. Differentiated management implementation. Different types of tasks, within their acceptable risk range, are selected and guaranteed based on the application level of components. Work to ensure that the reliability of components meets the requirements of aerospace missions.

5 Implementation Process and Requirements

5.1 Project Task Requirements Analysis The overall project unit should organize an assessment of the mission's lifespan, operational trajectory, reliability indicators, development cycle, and self-sufficiency requirements. A system analysis was conducted. In the early stages of project development, based on the different types of space missions and the development of various space products, the quality of components was systematically considered. Requirements regarding reliability levels, component supply schedules, and cost control should be considered. Different component protection measures should be clearly defined based on the application risks of different components. Certification strategies and requirements.