
**Space systems — Programme
management — Management of
product characteristics**

*Systèmes spatiaux — Management de programme — Management
des caractéristiques des produits*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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Introduction

During the development of space products, it is important to identify critical and major characteristics, and to annotate them in drawings and technical specifications. In design, proper product characteristic classification helps to improve the design quality. In production, proper product characteristic classification helps manufacturing activities successfully implement design requirements, and also helps producers control the characteristics which are critical to keeping the stability and traceability of product quality. In inspection, characteristic classification facilitates effective allocation of inspection effort. Meanwhile, it ensures realization of critical and major characteristics, quality of end product and the preset mission by performing management requirements through all of the development stages.

This document mainly defines the critical, major and minor characteristics of space products, describes the whole management process of product characteristics and specifies related management requirements.

This document focuses on management requirements for identification and control of space product characteristics, especially for critical and major characteristics, which are closely connected with end product quality and mission success, and enhances cost-effective applications in the life cycle of a space product.

In addition, this document will help to clarify and enhance current practices to improve quality assurance, and promote international cooperation.

Space systems — Programme management — Management of product characteristics

1 Scope

This document defines management requirements of product characteristics, including their classification, in order to highlight those areas of the product to which specific attention, control or inspections are applied.

This document is applicable to direct implementation of space product characteristic management, especially for mechanical parts and fluidic equipment.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 27025, *Space systems — Programme management — Quality assurance requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000 and ISO 10795 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

critical characteristic

kind of characteristic whose fault would cause failure of the whole system or major subsystem to perform a required mission or create serious harm to the safety of humans

3.2

end product

product in the assembled and completed state at which acceptance will take place

3.3

inspection unit

unit on which characteristic inspection is performed

3.4

major characteristic

kind of characteristic whose fault would cause the end product fails to perform a required mission

Note 1 to entry: It would not cause failure of the whole system or major subsystems which perform a required mission.

3.5

minor characteristic

kind of characteristic significant to product quality, but whose fault could not affect realization of mission performance of product