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

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**Spacecraft interface requirements document for launch vehicle
services**

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Foreword

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

The translation method used in this standard is equivalent to ISO 17401.2004 "Space System Spacecraft Launch Service Interface Requirements Document".

This standard has made the following editorial changes.

---Change the standard name to "Spacecraft to Launch Service Interface Requirements Document".

This standard was proposed and managed by the National Aerospace Technology and Application Standardization Technical Committee (SAC/TC425).

Drafting organizations of this standard. China Aerospace Standardization Institute, Nan'an Zhongji Standardization Research Institute Co., Ltd., Zhongke Wisdom (Dongying) Section Technology Innovation Development Co., Ltd., Xiamen Keli Electronics Co., Ltd.

Introduction

This standard is used to guide the preparation of the interface requirement file (IRD) for launch services. The purpose of this standard is to promote spacecraft and transportation

Technical exchanges between carrier rocket systems. This standard reduces unnecessary launch service requirements to reduce spacecraft contractors and spacecraft manufacturing

The cost of the supplier is minimized.

In some cases, in order to provide comprehensive information, drawings are clearly required. All projects have stipulated a clear international system of units. If not

Appropriate, can be adjusted to the corresponding ratio.

When necessary, the spacecraft party may add other requirements. Certain sections of the IRD may refer to specific circumstances that are not applicable to launch services.

However, in this case, tailoring can be carried out.

Spacecraft requirements documents for launch service interface

1 Scope

This standard specifies a general template for the spacecraft side to compile the launch service interface requirements document. The interface requirements document lists the spacecraft's

The main technical requirements for the launch vehicle and launch site when submitting the launch service application.

The interface requirements documents include the introduction of spacecraft launch tasks, mechanical and electrical interfaces, and overall environmental requirements (mechanical, thermal, cleanliness, wireless

Electrical-electrical), spacecraft development and testing programs, as well as launch site facilities and support requirements.

This standard is applicable to all active launch vehicles and related launch sites.

A relatively independent interface requirement document is convenient for the carrier to choose.

The interface requirement documents defined by this standard include the basic SC input data and interface control required by the carrier to compile interface control documents.

The document is drafted in accordance with ISO 15863.

2.1 Terms and definitions

The following terms and definitions apply to this document.

2.1.1

Available space usable volume

The space within the LV fairing or load-bearing structure that is allowed to be used by the payload, and the static envelope of the spacecraft must not exceed this space to ensure

There is no physical contact between the spacecraft and the launch vehicle in a dynamic environment.

2.1.2

Spacecraft adapter spacecraft adapter; SC adapter

The structure that connects the spacecraft and the launch vehicle, and the connection and separation device of the star and arrow.

Note. The spacecraft adapter is part of the launch vehicle.

2.2 Abbreviations

The following abbreviations apply to this document.

EIRP---Equivalent isotropic radiated power (equivalent isotropic radiated power)

EMC---electromagnetic compatibility (electromagnetic compatibility)

IRD---interface requirement document (interface requirement document)

LV---launch vehicle

RF---radiofrequency

SC---spacecraft

Y/N---whether to respond (yes/no response)