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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 42038-2022

Space data and information transfer systems - File delivery protocol

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1.Structure and Drafting Rules for Standardization Documents"

drafting.

This document was drafted with reference to ISO 17355.2007 "CCSDS File Transfer Protocol for Spatial Data and Information Transmission System".

degrees are not equivalent.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the business definition, protocol procedures, protocol data unit format,

User operations, business categories, and management information base, etc.

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This document is applicable to the file transfer from the spacecraft to the ground, from the ground to the spacecraft, and between spacecraft, and supports the file storage of the spacecraft.

Perform operations such as upload, download and control.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

GB/T 39350 Spatial Data and Information System Remote Spatial Data Link Protocol

GB/T 42041 Terminology for Space Data and Information Transmission in Aerospace

3 Terms and Definitions

The following terms and definitions defined in GB/T 42041 apply to this document.

3.1

protocol entity protocolentity

A concrete implementation instance of a file transfer protocol, similar to an Internet Protocol host.

3.2

metadata metadata

Data that defines and describes other data.

3.3

Protocol data unit protocoldataunit

Independent, bounded, self-identifying data transmitted between protocol entities.

Note. There are two types of file data and file instructions.

3.4

transaction

A uniquely identifiable file transfer unit (FDU) end-to-end transfer between two protocol entities.

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NOTE. Typically involves the transmission and reception of multiple Protocol Data Units (PDUs).

3.5

file storage filestore

The medium used to store files.

3.6

offset

The number of data bytes preceding a particular byte in the file data.

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