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

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**Space data and information transfer systems - Delta-DOR raw
data exchange format**

空间数据与信息传输系统 双差分单向测距原始数据交换格式
(English Translation)

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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.

This document is modified to adopt ISO 2020 8.2015 "Space data and information transmission systems - Dual-difference one-way ranging raw data exchange".

Format".

This document has undergone significant structural adjustments compared to ISO 20208:2015. A table comparing the structural numbering changes between the two documents is provided.

See Appendix A.

This document differs significantly from ISO 20208:2015. The relevant clauses are indicated in vertical margins.

Single lines (|) are indicated. A summary of these technical differences and their causes can be found in Appendix B.

The following editorial changes have been made to this document.

---The appendix information regarding principle definitions, document structure, etc., in Chapter 1 of ISO 20208:2015 has been removed;

---Some reference documents in section 1.6 of ISO 20208:2015 have been removed;

---Note 4.4.3 in ISO 20208:2015 has been removed;

---Added "Index Number Explanation" to the figures;

---Informative Annex B, "Regarding safety, SANA and patent rights," of ISO 20208:2015 has been deleted;

---Informative Annex D, "Informative References," of ISO 2020 8.2015 has been deleted.

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).

1 Scope

This document describes the measurement principle of dual-difference unidirectional ranging (deltaDOR) in space data and information transmission systems, and specifies the original data exchange...

Formatting Reversal (RDEF) and file naming conventions.

This document applies to the overall design and interfaces of ground telemetry and control equipment for deltaDOR joint measurement and data exchange among stakeholders in space missions.

Coordination, equipment testing and acceptance, and docking testing, etc.

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 39355-2020 Timecode Format for Spatial Data and Information Transmission Systems GB/T 42041 Aerospace Terminology. Space Data and Information Transmission

3 Terms and Definitions

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

baseline

The vector connecting the two observation stations.

channel

A sub-band of a spacecraft or radio source signal.

sample value

Instantaneous measurement of radio frequency signal voltage.

raw data

Sampled values of the received radio frequency signal voltage arranged in time sequence.

Observation scan

The process of receiving and recording signals from spacecraft or radio sources.

Note: It usually lasts for a few minutes.

Measurements during the measurement mission A collection of multiple deltaDOR measurements.