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Space engineering - Space data links - Telemetry transfer frame protocol

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/15

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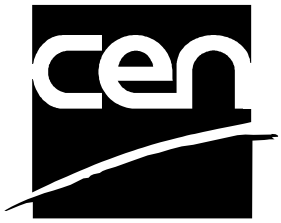
English version

Space engineering - Space data links - Telemetry transfer frame protocol

Ingénierie spatiale - Liaisons des données spatiales - Protocole trame de transfert de télémesure

Raumfahrtproduktsicherung - Telemetrieübertragungs-Rahmen-Protokoll

This European Standard was approved by CEN on 11 April 2014.



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Foreword

This document (EN 16603-50-03:2014) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN.

This standard (EN 16603-50-03:2014) originates from ECSS-E-ST-50-03C.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g. : aerospace).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Scope

This Standard contains the definition for Telemetry Transfer Frames which are fixed-length data structures, suitable for transmission at a constant frame rate on a space data channel.

The Telemetry Transfer Frame provides a standardized data structure for the transmission of space-acquired data over a telemetry space data link.

Usually, the source of the data is located in space and the receiver is located on the ground. However, this Standard may also be applied to space-to-space telemetry data links.

Further provisions and guidance on the application of this standard can be found, respectively, in the following publications:

- The higher level standard ECSS-E-ST-50, Communications, which defines the principle characteristics of communication protocols and related services for all communication layers relevant for space communication (physical- to application-layer), and their basic relationship to each other.
- The handbook ECSS-E-HB-50, Communications guidelines, which provides information about specific implementation characteristics of these protocols in order to support the choice of a certain communications profile for the specific requirements of a space mission..

Users of this present standard are invited to consult these documents before taking decisions on the implementation of the present one.

This standard may be tailored for the specific characteristics and constraints of a space project in conformance with ECSS-S-ST-00.

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Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this ECSS Standard. For dated references, subsequent amendments to, or revisions of any of these publications, do not apply. However, parties to agreements based on this ECSS Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references the latest edition of the publication referred to applies.

EN reference	Reference in text	Title
EN 16601-00-01	ECSS-S-ST-00-01	ECSS system – Glossary of terms
EN 16603-50-01	ECSS-E-ST-50-01	Space engineering – Space data links – Telemetry synchronization and channel coding
EN 16603-50-04	ECSS-E-ST-50-04	Space engineering – Space data links – Telecommand protocols, synchronization and channel coding
	CCSDS 133.0-B-1	Space Packet Protocol – Blue Book, Issue 1, September 2003
	CCSDS 135.0-B-3	Space Link Identifiers – Blue Book, Issue 3, October 2006