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Space engineering - Space data links - Telemetry synchronization and channel coding

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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EN 16603-50-01

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ICS 49.140

English version

Space engineering - Space data links - Telemetry synchronization and channel coding

Ingénierie spatiale - Liaison de données spatiales - Synchronisation et codage canal de la télémesure

Raumfahrtproduktsicherung - Raumfahrt-Datenübertragung - Telemetriesynchronisation und kanalkodierung

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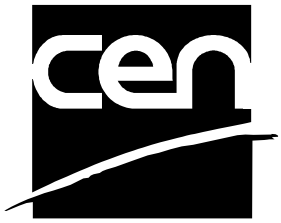

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Foreword

This document (EN 16603-50-01:2014) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN.

This standard (EN 16603-50-01:2014) originates from ECSS-E-ST-50-01C.

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of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.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).

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1
Scope

This Standard establishes a common implementation of space telemetry channel coding systems.

Several space telemetry channel coding schemes are specified in this Standard. The specification does not attempt to quantify the relative coding gain or the merits of each scheme, nor the design requirements for encoders or decoders. However, some application profiles are discussed in Annex D. Performance data for the coding schemes specified in this Standard can be found in CCSDS 130.1-G-1. Annex G describes the related mission configuration parameters.

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

- 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.

2
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

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