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Space engineering - Adoption Notice of CCSDS  
132.0-B-2, TM Space Data Link Protocol



## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 16603-50-22:2022 sisaldab Euroopa standardi EN 16603-50-22:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 16603-50-22:2022 consists of the English text of the European standard EN 16603-50-22:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.07.2022.	Date of Availability of the European standard is 06.07.2022.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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ICS 49.140

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EUROPEAN STANDARD

**EN 16603-50-22**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2022

ICS 49.140

Supersedes EN 16603-50-03:2014

English version

## Space engineering - Adoption Notice of CCSDS 132.0-B-2, TM Space Data Link Protocol

Ingénierie spatiale - Notice d'adoption de la CCSDS  
132.0-B-2, TM Space Data Link Protocol

Raumfahrttechnik - Adaption CCSDS 132.0-B-2,  
Telemetrie-Weltraum-Datenübertragungsprotokoll

This European Standard was approved by CEN on 13 March 2022.

CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN and CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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## European Foreword

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This document (EN 16603-50-22:2022) has been prepared by Technical Committee CEN-CENELEC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16603-50-22:2022) originates from ECSS-E-AS-50-22C.

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 January 2023, and conflicting national standards shall be withdrawn at the latest by January 2023.

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

EN 16603-50-22 and EN 16603-50-23 will together supersede EN 16603-50-03:2014.

The main changes with respect to EN 16603-50-03:2014 are listed below:

- Replacement of document by two Adoption Notices.

This document has been prepared under a standardization request 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# 1 Scope

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This document identifies the clauses and requirements modified with respect to the standard CCSDS 132.0-B-2, *TM Space Data Link Protocol*, Issue 2, September 2015, for application in ECSS.

## 2

## Context information

In the standard CCSDS 132.0-B-2, *TM Space Data Link Protocol*, CCSDS specifies a data link layer protocol for the efficient transfer of space application data of various types and characteristics over space links.

This Adoption Notice adopts and applies CCSDS 132.0-B-2 with a minimum set of modifications, identified in the present document, to allow for reference and for a consistent integration in the ECSS system of standards.

The TM Transfer Frame specified in CCSDS 132.0-B-2 is similar to the TM Transfer Frame specified in the EN 16603-50-03:2014 (ECSS-E-ST-50-03), that is superseded by the following two Adoption Notices: EN 16603-50-22 (ECSS-E-AS-50-22) and EN 16603-50-23 (ECSS-E-AS-50-23).

Differences between these two standards that are not covered by the normative modifications in clause 4 are described in the informative Annex A.

Overview of superseded EN 16603-50-xx Standards

Superseded EN	New EN	Based on CCSDS
EN 16603-50-01:2014	EN 16603-50-21	CCSDS 131.0-B-3 (Sept. 2017)
EN 16603-50-03:2014	EN 16603-50-22	CCSDS 132.0-B-2 (Sept. 2015)
	EN 16603-50-23	CCSDS 732.0-B-3 (Sept. 2015)
EN 16603-50-04:2014	EN 16603-50-24	CCSDS 231.0-B-3 (Sept. 2017)
	EN 16603-50-25	CCSDS 232.0-B-3 (Sept. 2015)
	EN 16603-50-26	CCSDS 232.1-B-2 (Sept. 2010)

## Abbreviated terms

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AOS	Advanced Orbiting Systems
SDLS	Space Data Link Security