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I.S. EN 16603-50-53:2015

# Space engineering - SpaceWire - CCSDS packet transfer protocol

**I.S. EN 16603-50-53:2015**

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## Space engineering - SpaceWire - CCSDS packet transfer protocol

Ingénierie spatiale - SpaceWire - protocole de transfert de  
paquets CCSDS

Raumfahrtproduktsicherung - SpaceWire - Protokoll zur  
CCSDS-Paketübertragung

This European Standard was approved by CEN on 23 November 2014.

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## Foreword

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This document (EN 16603-50-53:2015) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16603-50-53:2015) originates from ECSS-E-ST-50-53C.

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of an identical text or by endorsement, at the latest by July 2015, and conflicting national standards shall be withdrawn at the latest by July 2015.

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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.

# 1 Scope

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There is a number of communication protocols that can be used in conjunction with the SpaceWire Standard (ECSS-E-ST-50-12), to provide a comprehensive set of services for onboard user applications. To distinguish between the various protocols a protocol identifier is used, as specified in ECSS-E-ST-50-51.

This Standard specifies the CCSDS packet transfer protocol, which is one of these protocols that works over SpaceWire.

The aim of the CCSDS Packet Transfer Protocol is to transfer CCSDS Packets across a SpaceWire network. It does this by encapsulating the CCSDS Packet in a SpaceWire packet, transferring it across the SpaceWire network and then extracting the CCSDS Packet at the target.

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

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