

Space engineering - SpaceWire - CCSDS packet transfer protocol

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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ICS 33.040.40, 49.140

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English version

**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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Table of contents

Foreword	4
1 Scope	5
2 Normative references	6
3 Terms, definitions and abbreviated terms	7
3.1 Terms defined in other standards	7
3.2 Terms specific to the present standard	7
3.3 Abbreviated terms	7
3.4 Conventions	7
4 Principles	8
4.1 Purpose	8
4.2 Protocol features	8
4.3 Services	9
4.4 Guide to this document	10
5 Requirements	11
5.1 Service parameters	11
5.1.1 CCSDS packet	11
5.1.2 Packet length	11
5.1.3 Status code	11
5.1.4 Target SpaceWire Address	11
5.1.5 Target Logical Address	12
5.1.6 User Application Value	12
5.2 Service primitives	12
5.2.1 CCSDS Packet Transfer Service	12
5.2.2 CCSDS_PACKET_SEND.request	12
5.2.3 CCSDS_PACKET_RECEIVED.indication	13
5.3 CCSDS Packet Transfer Protocol fields	14
5.3.1 Target SpaceWire Address field	14
5.3.2 Target Logical Address field	14
5.3.3 Protocol Identifier field	14

5.3.4	Reserved field	14
5.3.5	User Application field	14
5.3.6	Packet field	15
5.4	CCSDS Packet Transfer Protocol format	15
5.5	CCSDS Packet Transfer Protocol Action	16
5.5.1	Overview	16
5.5.2	Send request	16
5.5.3	Transfer packet	17
5.5.4	Receive indication	17
Annex A (informative) Managed parameters		19
Bibliography		20
 Figures		
Figure 4-1: Protocol configuration		8
Figure 5-1: Encapsulated CCSDS Packet format		15
Figure 5-2: CCSDS Packet Transfer Protocol Packet Transfer		16

Foreword

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of an identical text or by endorsement, at the latest by July 2015, and conflicting national standards shall be withdrawn at the latest by July 2015.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

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.

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 revision 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 more 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 16603-50-12	ECSS-E-ST-50-12	Space engineering - SpaceWire - Links, nodes, routers and networks
EN 16603-50-51	ECSS-E-ST-50-51	Space engineering - SpaceWire protocol identification
	CCSDS 133.0-B-1	Space Packet Protocol, Blue Book