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**Space data and information transfer  
systems — Proximity-1 space link  
protocol — Data link layer**

*Systèmes de transfert des informations et données spatiales —  
Protocole pour liaisons spatiales de proximité 1 — Couche de liaisons  
de données*



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Published in Switzerland

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 22663 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 13, *Space data and information transfer systems*.

This second edition cancels and replaces the first edition (ISO 22663:2006), which has been technically revised.

ISO 22663 was prepared by the Consultative Committee for Space Data Systems (CCSDS) (as CCSDS 211.0-B-4, July 2006) and was adopted (without modifications except those stated in Clause 2 of this International Standard) by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 13, *Space data and information transfer systems*.

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# Space data and information transfer systems — Proximity-1 space link protocol — Data link layer

## 1 Scope

This International Standard defines the Proximity-1 space link protocol data link layer (framing, media access, data services, and input/output sublayers). It specifies the protocol data units, framing, media access control, expedited and sequenced controlled data transfer, timing service, i/o control, as well as the procedures for establishing and terminating a session between a caller and responder. The coding and synchronization sublayer is defined in ISO 21459. The physical layer is defined in ISO 21460.

This International Standard does not specify

- a) individual implementations or products;
- b) implementation of service interfaces within real systems;
- c) the methods or technologies required to perform the procedures; or
- d) the management activities required to configure and control the protocol.

The scope and field of application are furthermore detailed in subclause 1.3 of the enclosed CCSDS publication.

## 2 Requirements

Requirements are the technical recommendations made in the following publication (reproduced on the following pages), which is adopted as an International Standard:

CCSDS 211.0-B-4, July 2006, *Proximity-1 space link protocol — Data link layer*.

For the purposes of international standardization, the modifications outlined below shall apply to the specific clauses and paragraphs of publication CCSDS 211.0-B-4.

*Pages i to v*

This part is information which is relevant to the CCSDS publication only.

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Add the following information to the reference indicated:

- [2] Document CCSDS 232.1-B-1, September 2003, is equivalent to ISO 22667:2005.
- [3] Document CCSDS 232.0-B-1, September 2003, is equivalent to ISO 22664:2005.
- [4] Document CCSDS 132.0-B-1, September 2003, is equivalent to ISO 22645:2005.
- [5] Document CCSDS 131.0-B-1, September 2003, is equivalent to ISO 22641:2005.