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INFORMATION TECHNOLOGY – FIBRE CHANNEL –

Part 251: Framing and signalling (FC-FS)

FOREWORD

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International Standard ISO/IEC 14165-251 was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 14165 series, under the general title *Information technology – Fibre channel*, can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

INTRODUCTION

This International Standard combines the following Fibre Channel standards (for full reference, see Bibliography):

ANSI INCITS 230-1994 (R1999)

ANSI INCITS 230-1994/Amendment 1-1996 (R2001)

ANSI INCITS 230-1994/Amendment 2-1999 (R2001)

ANSI INCITS 297-1996 (R2002)

ANSI INCITS 303-1998 (R2002)

This International Standard includes the following changes with respect to the above publications:

- definitions of existing services have been clarified and/or improved based on experience with existing implementations;
- outdated functions and features have been deleted;
- additional link services in support of new functions defined by the Fibre Channel family of documents have been included;
- definition of other capabilities which enhance the performance of existing Fibre Channel products and fit them for new applications.

INFORMATION TECHNOLOGY – FIBRE CHANNEL –

Part 251: Framing and signalling (FC-FS)

1 Scope

This part of ISO/IEC 14165 describes the framing and signalling interface of a high-performance serial link for support of FC-4s associated with upper level protocols (for example SCSI, IP, SBCCS, VI).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

2.1 Approved references

- [1] ISO/IEC 14165-116, *Information technology – Fibre channel – Part 116: 10 Gigabit fibre channel (10GFC)*
- [2] ISO/IEC 14165-122, *Information technology – Fibre channel – Part 122: Arbitrated loop-2 (FC-AL-2)*
- [3] ISO/IEC 9314-2:1989, *Information processing systems – Fibre distributed data interface (FDDI) – Part 2: Token ring media access control (FDDI-MAC)*
- [4] ISO/IEC TR 8802-1, *Information technology – Telecommunications and information exchange between systems - Local and metropolitan area networks – Specific requirements – Part 1: Overview of Local Area Network Standards*
- [5] ISO/IEC 8802-2, *Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements – Part 2: Logical link control*
- [6] ISO/IEC 14165-414, *Information technology – Fibre channel – Part 414: Generic services – 4 (FC-GS-4)* [ANSI INCITS 387-2004]

2.2 References under development

- [7] ISO/IEC 14165-133, *Information technology – Fibre channel – Part 133: Switch fabric-3 (FC-SW-3)*, [ANSI INCITS 384-2004]
- [8] ISO/IEC 14165-142, *Information technology – Fibre channel – Part 142: - Physical interfaces-2 (FC-PI-2)*, [ANSI INCITS 404-2006]
- [9] ISO/IEC 14776-223, *Information technology – Small computer system interface (SCSI) – Part 223: Fibre channel protocol for SCSI, Version 3 (FCP-3)* [ANSI INCITS 416-2006]
- [10] ISO/IEC 14776-453, *Information technology – Small computer system interface (SCSI) – Part 453: Primary commands-3 (SPC-3)* [ANSI INCITS 408-2005]

2.3 Other references

All references in this subclause were correct at the time of approval of this International Standard. The provisions of the referenced specifications, as identified in this subclause, are valid within the context of this International Standard. The reference to a specification within this International Standard does not give it any further status

within ISO/IEC; in particular, it does not give the referenced specification the status of an International Standard.

IETF Requests for Comments (RFCs) may be obtained directly from the IETF web site at <http://www.ietf.org/rfc.html>.

- [11] INCITS TR-20:1998, *Information technology - Fibre Channel – Fabric Loop Attach (FC-FLA)*
- [12] RFC 2625, *IP and ARP over Fibre Channel*
- [13] RFC 2597, *Assured Forwarding PHB Group*, June 1999
- [14] RFC 2598, *An Expedited Forwarding PHB*, June 1999
- [15] RFC 768, *User Datagram Protocol*, August 1980.
- [16] RFC 791, *Internet Protocol*, September 1981.
- [17] RFC 793, *Transmission Control Protocol*, September 1981.
- [18] RFC 854, *Telnet Protocol Specification*, May 1983.
- [19] RFC 1157, *A Simple Network Management Protocol (SNMP)*, May 1990.
- [20] RFC 1901, *Introduction to Community-based SNMPv2*, January 1996
- [21] RFC 2373, *IP Version 6 Addressing Architecture*, July 1998.
- [22] RFC 2460, *Internet Protocol, Version 6 (IPv6) Specification*, December 1998.
- [23] RFC 2616, *Hypertext Transfer Protocol -- HTTP/1.1*, June 1999.
- [24] RFC 2818, *HTTP Over TLS*, May 2000.
- [25] RFC 2406, *IP Encapsulating Security Payload (ESP)*, November 1998.