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**Information technology –
Fibre channel –**

**Part 116:
10 Gigabit Fibre Channel (10GFC)**

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**INFORMATION TECHNOLOGY –
FIBRE CHANNEL –
Part 116: 10 Gigabit Fibre Channel (10GFC)**

FOREWORD

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INTRODUCTION

The Fibre Channel signalling and physical requirements described in this document cover

- link architecture including retiming (see clause 5)
- physical layer specifications(see clause 6)
- connector performance specifications (see clause 7)
- link and cable plant management specifications (see clause 8)
- FC-1 data path interface (see clause 9)
- optional interconnect interfaces (see clauses 10, 11 and 14)
- transmission coding (see clauses 12 and 13)
- management interface and register set (see clause 15).

INFORMATION TECHNOLOGY – FIBRE CHANNEL – Part 116: 10 Gigabit Fibre Channel (10GFC)

1 Scope

This part of ISO/IEC 14165 describes the signalling and physical requirements that may be utilized by Fibre Channel-2 (FC-2) level transport data at a rate in excess of 10 Gbit/s.

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.

IEC 60793-1-41, *Optical fibres – Part 1-41: Measurement methods and test procedures – Bandwidth*

IEC 60793-1-49, *Optical fibres – Part 1-49: Measurement methods and test procedures – Differential mode delay*

IEC 60793-2, *Optical fibres – Part 2: Product specifications – General*

IEC 60793-2-10, *Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres*

IEC 60825-1:1993, *Safety of laser products – Part 1: Equipment classification, requirements and user's guide, including Amendment 1 (1997) and Amendment 2 (2001)*

IEC 60950-1, *Information technology equipment – Safety – Part 1: General requirements*

IEC 61280-4-1, *Fibre-optic communication subsystem test procedures – Part 4-1: Cable plant and links – Multimode fibre-optic cable plant attenuation measurement*

IEC 61280-4-2, *Fibre-optic communication subsystem basic test procedures – Part 4-2: Fibre optic cable plant – Single-mode fibre optic cable plant attenuation*

IEC 61300-3-3, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

IEC 61300-3-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss*

IEC 61753-1-1, *Fibre optic interconnecting devices and passive components performance standard – Part 1-1: General and guidance – Interconnecting devices (connectors)*

IEC 61753-021-2, *Fibre optic interconnecting devices and passive component performance standard – Part 021-2: Fibre optic connectors terminated on single-mode fibre for category C – Controlled environment*

IEC 61753-022-2, *Fibre optic interconnecting devices and passive components performance standard – Part 022-2: Fibre optic connectors terminated on multimode fibre for category C – Controlled environment*

IEC 61754-7, *Fibre optic connector interfaces – Part 7: Type MPO connector family*

ISO/IEC 8802-3:2000, *Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements – Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications (also referred to as 10GbE)¹*

¹ Including forthcoming ISO/IEC 8802-3, Amendment 1, *Media Access Control (MAC) Parameters, Physical Layers and Management Parameters for 10 Gbit/s Operation*.

ITU-T Recommendation G.707, *Network node interface for the synchronous digital hierarchy (SDH)*.

ITU-T Recommendation G.709, *Interfaces to the Optical Transport Network (OTN)*.