



Date: 22 January 2024
To: T10 Technical Committee
From: Ralph O. Weber
Subject: ISO/IEC JTC 1 Fast Track Explanatory Report TEMPLATE

Cover Page

This is the cover page for a PDF created by Microsoft Word the contents of which forms an ISO/IEC JTC 1 Fast Track **Explanatory Report**. This file is:

- this cover page; and
- the content of the docx file uploaded with this PDF.

JTC 1 processing of a Fast Track requests mandates the delivery of a Microsoft Word document in which this template has been edited to describe the approved (or soon to be approved) American National Standard for which Fast Track international standard is desired.

Warning: Substantial amounts of the text in the template MUST be delivered to INCITS and JTC 1 exactly as they are shown in the following pages. Do not try to out-guess the process.

Only those parts of the template that are highlighted in yellow should be modified. Some of the modifications are obvious (e.g., insert the right year). Microsoft Word comments are provide to simplify the other modifications.

JTC 1 Fast Track Explanatory Report

United States Title

Information Technology – Fibre Channel – Physical Interface – 7 (FC-PI-7)

Proposed ISO/IEC Title

ISO/IEC 14165-147:20xx, Information Technology - Fibre Channel - Part 147-Physical Interfaces - 7 (FC-PI-7)

sc25-wg4-2019-00016

October 15, 2019

This Explanatory Report is provided by the InterNational Committee for Information Technology Standards (INCITS) to support the submission of **INCITS 543-2019: Information technology - Fibre Channel – Physical Interface – 7 (FC-PI-7)** as an ISO/IEC International Standard using the ISO/IEC JTC 1 Fast Track process.

The Fibre Channel Physical Interface – 7 (FC-PI-7) standard describes the point-to-point physical interface portions of Fibre Channel optical link and backplane variants that support the higher level Fibre Channel protocols.

FC-PI-7 describes the physical link for single data streams supporting a signaling rate of 64GFC. The 64GFC variants include 64GFC-SW for MM variant, 64GFC-LW for SM variant and 64GFC-EA for backplane variant. It is the responsibility of the component suppliers and the system integrator to ensure that this level of service is provided at every port in a given Fibre Channel installation. FC-PI-7 defines optical and electrical interoperability points at specific physical locations in the FC system. No interoperability points are required for closed or integrated links and FC-PI-7 is not required for such applications. For closed or integrated links the system designer shall ensure that a BER as observed prior to error correction is better than the values specified in FC-PI-7. The BER for the electrical and optical sections of a FC-PI-7 link shall meet requirements shown in 4.11.

References:

1. JTC 1 Supplement clause F.2.1.1 – Requirement to submit an explanatory report with Fast Track submissions
2. JTC 1 Supplement clause F.3 – *Preparation and Adoption of International Standards – JTC 1 PAS Transposition Process*
3. JTC 1 Standing Document 9 – *Guide to the Transposition of Publicly Available Specifications into International Standards*

Once a PAS Originator has been recognised, a PAS submission to the JTC 1 Secretariat may occur within the technical scope identified in the PAS Submitter application. This PAS submission must be accompanied by an Explanatory Report produced by the Submitter, and a statement that the conditions for recognition of the PAS Submitter have not changed, or an indication of the nature of changes that have occurred (see SD9 clause 6.2.2). The Explanatory Report must address the document-related criteria as shown below (section 7.4 from SD9).

The Submitter is further invited to comment on the following items in the Explanatory Report:

- a) Clearly define the technical concepts used in the submission (see the definition of Explanatory Report in JTC 1 Supplement F.3.1 and SD9 clause 5) and
- b) Explicitly reference the JTC 1 common strategic characteristics (interoperability, portability, cultural and linguistic adaptability, and accessibility) (see SD9 clause 4).

Similarly, JTC 1 requires that an Explanatory Report be submitted with every Fast Track submission, and it must follow the same model used for a PAS submission.

Please be sure to address the following Document Related Criteria when making any PAS or Fast Track submission to JTC 1. The paragraphs follow the clause numbering in SD9 section 7.4.

7.4.1 Quality

Within its scope the specification shall completely describe the functionality (in terms of interfaces, protocols, formats, etc.) necessary for an implementation of the submission. If it is based on a product, it shall include all the functionality necessary to achieve the stated level of compatibility or interoperability in a product independent manner.

7.4.1.1 Completeness (M)

- a) How well are all interfaces specified?
All interfaces are specified as normative text.
- b) How easily can implementation take place without need of additional descriptions?
No additional descriptions are needed for implementations to take place.
- c) What proof exists for successful implementations (e.g. availability of test results for media standards)?

There are many implementations in use today.

7.4.1.2 Clarity

- a) What means are used to provide definitive descriptions beyond straight text?
Diagrams and examples are provided to assist with understanding of normative text.
- b) What tables, figures and reference materials are used to remove ambiguity?
A list of tables, figures, and normative references are provided in the front matter.
- d) What contextual material is provided to educate the reader?
Reference models and informative annexes are provided to educate the reader.

7.4.1.3 Testability (M)

The extent, use and availability of conformance/interoperability tests or means of implementation verification (e.g. availability of reference material for magnetic media) shall be described, as well as the provisions the specification has for testability.

The specification shall have had sufficient review over an extended time period to characterise it as being stable.

7.4.1.4 Stability (M)

- a) How long has the specification existed, unchanged, since some form of verification (e.g. prototype testing, paper analysis, full interoperability tests) has been achieved?

The standard has existed and has not changed since 2019.

- b) To what extent and for how long have products been implemented using the specification?

Products based on the standard have been implemented since 2019.

- c) What mechanisms are in place to track versions, fixes and addenda?

Versions and amendments are developed and administered by INCITS Technical Committee T11 – Fibre Channel Interfaces.

7.4.1.5 Availability (M)

- a) Where is the specification available (e.g. one source, multinational locations, what types of distributors)?

The standard is available via ANSI webstore <https://webstore.ansi.org/>.

- b) How long has the specification been available?

The standard has been available since 2019.

- c) Has the distribution been widespread or restricted? (describe the situation)

The standard has widespread distribution.

- e) What are the costs associated with specification availability?

Cost of standard purchase is set by ANSI.

7.4.2 Consensus (M)

The accompanying report shall describe the extent of (inter)national consensus that the document has already achieved.

7.4.2.1 Development Consensus

- a) Describe the process by which the specification was developed.

The standard was developed by the INCITS T11.2 Task Group using the INCITS policies and procedures.

- b) Describe the process by which the specification was approved.

The standard was approved by the INCITS T11 Technical Committee using the INCITS policies and procedures.

- c) What “levels” of approval have been obtained?

The standard was approved by INCITS for publishing.

7.4.2.2 Response to User Requirements

- a) How and when were user requirements considered and utilized?

User requirements were considered and addressed in the standard project proposal and development phase.

- b) To what extent have users demonstrated satisfaction?

There are no known user issues with this standard.

7.4.2.3 Market Acceptance

- a) How widespread is the market acceptance today? Anticipated?

Products based on this standard are in the market today, and are expected to remain viable for many more years.

- b) What evidence is there of market acceptance in the literature?

This standard is specified in literature for products based on this standard.

7.4.2.4 Credibility

- a) What is the extent and sue of conformance tests or means of implementation verification?

Conformance tests and implementation verification is performed as needed by product vendors.

- b) What provisions does the specification have for testability?

Implementation requirements are specified in the standard for testability.

7.4.3 Alignment

The specification should be aligned with existing JTC 1 standards or ongoing work and thus complement existing standards, architectures and style guides. Any conflicts with existing standards, architectures and style guides should be made clear and justified.

7.4.3.1 Relationship to Existing Standards

- a) What International Standards are closely related to the specification and how?

International Standards referenced in normative text are specified in the front matter.

- b) To what International Standards is the proposed specification a natural extension?

None.

- c) How the specification is related to emerging and ongoing JTC 1 projects?

No relationship to emerging and ongoing JTC 1 projects.

7.4.3.2 Adaptability and Migration

- a) What adaptations (migrations) of either the specification or International Standards would improve the relationship between the specification and International Standards?

None.

- b) How much flexibility do the proponents of the specification have?

Comments and feedback on the standard can be submitted for review and resolution to INCITS.

- c) What are the longer-range plans for new/evolving specifications?

A new INCITS project proposal will be presented in the future as needed.

7.4.3.3 Substitution and Replacement

- a) What needs exist, if any, to replace an existing International Standard? Rationale?

None.

- b) What is the need and feasibility of using only a portion of the specification as an International Standard?

None.

- c) What portions, if any, of the specification do not belong in an International Standard (e.g. too implementation-specific)?

None.

7.4.3.4 Document Format and Style

- a) What plans, if any, exist to conform to JTC 1 document styles?

This document will conform to US American National Standards Institute (ANSI) styles, as well as, conforming to many of the JTC1 Directives part 2 seventh edition 2016 styles.

7.4.4 Maintenance (M)

- a) Have changes occurred on the subject of maintenance since the PAS Submitter application or renewal or, for a Fast Track, since the most recent submission of the standard? (This is the place to mention any particular agreement reached with a JTC 1 entity).

No changes have occurred.