

400GBASE-SR16 MDI (clause 121.11.3.2)

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MPO-16 Standardization

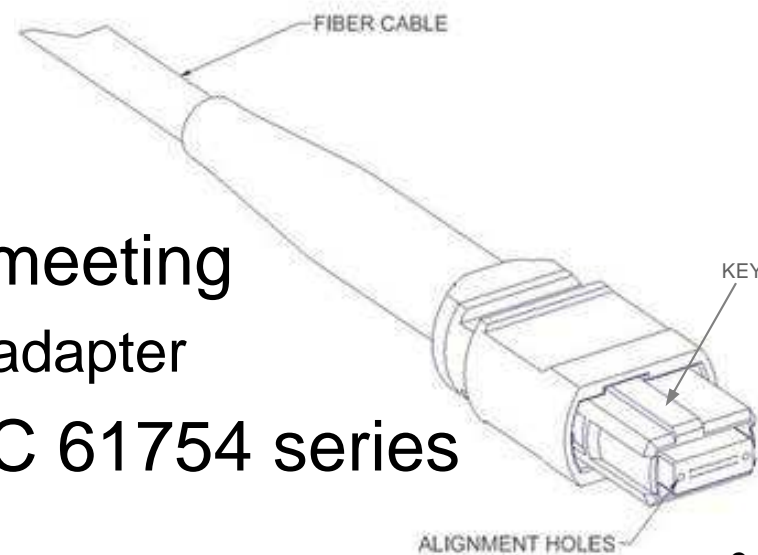
- ANSI/TIA-604-18 (FOCIS-18)

- Published November 2015
- Defines 16-fiber (1-row) and 32-fiber (2-row) plugs with flat end-faces only, and adapter



- IEC 86B

- New project initiated at May 2014 meeting
 - 32-fiber 2-row flat end-face plug, and adapter
- Standard to become addition to IEC 61754 series
 - Advanced to first CD ballot



Clause 121.11.3.2

Medium Dependent Interface (MDI) requirements

- Situation
 - Current content is ~cut-n-paste from clause 95.11.3.2
 - Contains seven TBDs that depend on external standards
 - Presumes use of IEC references
 - IEC's performance standards are published
 - IEC's MPO-16 standard may not publish in timely way
 - ANSI/TIA's published MPO-16 standard should be referenced instead
 - Proposed adjustments to content reviewed next

Current Clause Content

121.11.3.2 Medium Dependent Interface (MDI) requirements

The MDI adapter or receptacle shall meet the dimensional specifications for interface (TBD) 7-1-3: *MPO adapter interface - opposed keyway configuration*, or interface 7-1-10 TBD: *MPO active device receptacle, flat interface*, as defined in IEC 61754-7-1 TBD. The plug terminating the optical fiber cabling shall meet the dimensional specifications of interface 7-1-4 TBD: *MPO female plug connector, flat interface for 2 to TBD fibres*, as defined in IEC 61754-7-1. The MDI shall optically mate with the plug on the optical fiber cabling. Figure 121–5 shows an MPO-16 female two-row plug with flat interface, and an MDI. The MDI shall meet the interface performance specifications of IEC 61753-1 TBD and IEC 61753-022-2 TBD.

NOTE— Transmitter compliance testing is performed at TP2 as defined in 121.5.1, not at the MDI.

Legend:

magenta = text needing attention

green = text that should change

black = stable

New Proposed Content – changes tracked

121.11.3.2 Medium Dependent Interface (MDI) requirements

The MDI adapter or receptacle shall meet the dimensional specifications for ~~interface (TBD) 7-1-3: MPO adapter interface—opposed keyway configuration~~ designations FOCIS 18 A-k-0, or interface 7-1-10 TBD: MPO active device receptacle, flat interface, as defined in ~~IEC 61754-7-1 TBD~~ ANSI/TIA-604-18. The plug terminating the optical fiber cabling shall meet the dimensional specifications of ~~interface 7-1-4 TBD: MPO female plug connector, flat interface for 2 to TBD fibres~~ designations FOCIS 18 P-2x16-1-0-2-2, as defined in ~~IEC 61754-7-1~~ ANSI/TIA-604-18. The MDI shall optically mate with the plug on the optical fiber cabling. Figure 121-5 shows an MPO-16 female two-row plug with flat interface, and an MDI. The MDI shall meet the interface performance specifications of IEC 61753-1 ~~TBD~~ and IEC 61753-022-2 ~~TBD~~.

NOTE— Transmitter compliance testing is performed at TP2 as defined in 121.5.1, not at the MDI.

New Proposed Content – changes accepted

121.11.3.2 Medium Dependent Interface (MDI) requirements

The MDI adapter or receptacle shall meet the dimensional specifications for designation FOCIS 18 A-k-0 as defined in ANSI/TIA-604-18. The plug terminating the optical fiber cabling shall meet the dimensional specifications of designation FOCIS 18 P-2x16-1-0-2-2 as defined in ANSI/TIA-604-18. The MDI shall optically mate with the plug on the optical fiber cabling. Figure 121–5 shows an MPO-16 female two-row plug with flat interface, and an MDI. The MDI shall meet the interface performance specifications of IEC 61753-1 and IEC 61753-022-2.

NOTE— Transmitter compliance testing is performed at TP2 as defined in 121.5.1, not at the MDI.

Summary

- With the publication of ANSI/TIA-604-18 (FOCIS 18) the content of clause 121.11.3.2 can be firmed
- Proposed modifications that reference the ANSI/TIA standard instead of an IEC standard are provided
- Comments on draft 1.1 can be anticipated in alignment with this contribution

Thank You.

Questions?