

IEEE 802.3 Ethernet Working Group TIA TR-42 Liaison to IEEE 802.3

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Introduction to TIA

- Telecommunications Industry Association
- www.tiaonline.org
- TR-42: Defines mechanical and transmission requirements for copper twisted-pair, optical fiber, and coaxial cabling and components
- Report current as of TIA TR42 Plenary, 06-10Oct2025 in San Antonio, TX

TIA TR42 Leadership Change

- **Elections held 02Feb 2026 for TR42 Committee Chair and Vice Chair positions**
- **New TR42 Chair is Cindy Montstream**
- **New TR42 Vice Chair is Diane Forbes**

TR 42.1 - *Premises Telecommunications Infrastructure*

Open Documents:

- ANSI/TIA-568.1-F (Consolidation of 568.0, 568.1 & 862) – comments resolved, circulate for an approval ballot, resolve comments at our June meeting
- ANSI/TIA-758-C (OSP) – discussed dictionary term mismatch; voted to publish

Status Update & Next Steps:

- ANSI/TIA-5017-A (Security) – document has not closed, will resolve comments in June
- TSB-162-B (Wireless Access Points) – Bob Faber volunteered to complete so we can publish, per previous meeting resolution
- Approved upgrading DAS document to a Standard, expect to see draft in June
- Approved a project request to open an Addendum to address AI needs within TIA 942
- TSB-6000 to be revised

TR 42.3 – *Commercial Building Telecommunications Pathways & Spaces*

- Comment Resolution:
 - ANSI/TIA-569-F (Pathways & Spaces) (Editor: Cindy Montstream)
 - Started comment resolution but ran out of time (TR423-2026-02-002)
 - Issue another Call for Comments and combine unresolved comments with new comments & resolve at June meeting
 - ANSI/TIA-606-E (Administration) (Editor: Jonathan Jew)
 - Completed comment resolution (TR423-2026-02-003a)
 - Editor will update draft & send definitions to TR-42.5
 - Disposition decision will be made at June meeting (waiting for 568.1 & 569 to get further in process)
- Review Bonding & Grounding contribution from David Labelle/BPA (TR423-2026-02-004)
 - Task group to look at inconsistencies & confusion in TIA 607 standard
 - Andrew McElroy (andrew.mcelroy@te.com) will lead task group (email Andrew if interested in participating)
 - Task group will provide a task group report at June meeting

TR 42.5 – *Telecommunications Infrastructure Terms & Symbols*

- New and Modified Definitions and Acronyms
- Other discussions
- Chair and Vice Chair were elected
- Chair: Tiger Ninomiya, Accelink
- Vice Chair: Bob Faber, DLB Associates
- Appointed Jodie Goodbrake (AECOM) as Dictionary Editor
- Request to other TR42 Subcommittees
- Request editors to review the use of “Cabling Systems 1-3” and “Distributor A-C” as these will be replaced in a future revision, and please provide feedback to TR42.5 at the June 2026 meeting

TR 42.7 - *Telecommunications Copper Cabling Systems*

- TSB-5073, Guidelines for Supporting Extended Distance over 4-pair Balanced Twisted-Pair Cabling
 - Reviewed initial draft of document, send draft out for Call for Comments
 - Call for Comments closing date 01May2026
- ANSI/TIA-5071, Requirements for Field Test Instruments and Measurements for Balanced Single Twisted-Pair
 - Reaffirm document via ballot, complete by June 2026 meeting
- ANSI/TIA-568.4-E, Broadband Coaxial Cabling and Components Standard
 - Document has published
- ANSI/TIA-1152-A, Requirements for Field Test Instruments and Measurements for Balanced Twisted-Pair Cabling
 - Submit PAR to start revision, ballot document, comment resolution at June 2026 meeting
- ANSI/TIA-568.5-A, Standard for 1-pair cabling – Revision
 - Reviewed PAR and initial draft document
 - Call for Comments initiated with 45-day comment period

TR 42.9 - *Industrial Telecommunications Infrastructure*

ANSI/TIA-568.7 Liaise Document Request

- Copy of this document requested by ODVA and ISO/IEC JTC1 SC25 WG3
- Document sharing approved in closing meeting

Liaison Officers between TIA TR42 and ODVA

- **Brian Shuman is liaison officer from TIA TR42 to ODVA**
- **Brad Woodman is liaison officer from ODVA to TIA TR42**

TR 42.11 - Optical Fiber Systems

Liaison Request from TIA TR42 to IEEE 802.3 Request for insights from IEEE 802.3 on 2-row MPOs, information at this URL

https://www.ieee802.org/3/minutes/mar26/incoming/TIA_TR42p11_Liaison_slide_draft_about_structured_cabling.pdf

TR42.11 Request for Insights from IEEE 802.3 (1/2)

- For current applications such as SR10, would there be any preference for Option 1 or 2?
 - TIA-568.3 currently supports Option 2
 - The only other public reference identified is the Corning Applications Engineering Note designating channel numbers for MPO-24, which aligns with Option 1. It illustrates breakout scenarios
 - Reference link: [AEN150.pdf](#)

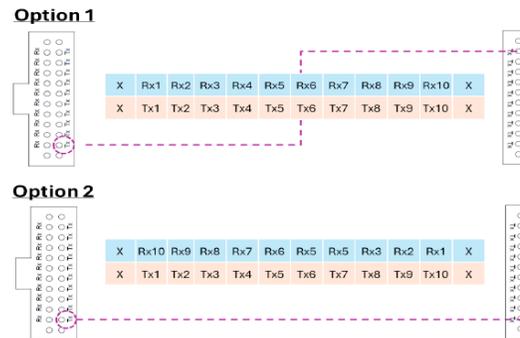
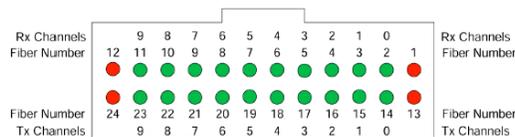
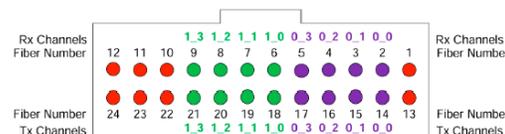


Figure 1: Parallel Fiber (20-fiber) Optic Transmission



Fiber Numbers and Channel Assignments when looking into MTP Receptacle
NOTE: Fibers 1, 12, 13, 24 are not used.

Figure 2: CPAK 100G Configured for 40G-SR4 Breakouts



Fiber Numbers and Channel Assignments when looking into MTP Receptacle
NOTE: Fibers 1, 10, 11, 12, 13, 22, 23, 24 are not used.

TR42.11 Request for Insights from IEEE 802.3 (2/2)

- Which 2-row MPO variants should be considered for future Ethernet applications?
 - TR42.11 seeks IEEE's input on which 2-row MPO variants should be considered for future Ethernet applications, such as MPO-32 for potential DR16 optics
 - Guidance is requested on whether future designs will separate Tx and Rx channels by row (Top/Bottom) or by side (Left/Right) and where each Tx and Rx channel will be placed (i.e. Tx1 and Rx1, Tx2 and Rx2...).



*QSFP-DD MSA spec states that 2-row MPO12 MDI is only for breakout applications and is not intended for structured cabling

- Ongoing Liaison
 - TR42.11 looks forward to receiving these insights from IEEE and will continue liaison reporting as alternate mapping options are discussed
 - We also wish to coordinate a joint ad-hoc study call to discuss the polarity of structured cabling applications using the 2-row MPO MDI

TR 42.12 - *Optical Fiber Systems*

Elections held for this subcommittee

- New Chair is Michael Stover
- New Vice Chair is Dan Smith

FOTP work (out for comments)

- FOTP 25, FOTP 85, FOTP 86, FOTP 162

FOTP work (out for ballot)

- FOTP 33, FOTP41, FOTP 88, FOTP 89, FOTP 91, FOTP 98

TR 42.13 - *Passive Optical Devices & Fiber Optic Metrology*

Published Documents

- ANSI/TIA-623.1 (Adoption of IEC 61755-3-1 SM PC optical interface)
- ANSI/TIA-623.2 (Adoption of IEC 61755-3-2 SM APC optical interface)

Maintenance Projects

- ANSI/TIA-455-227-A (Keying accuracy of PM connectors) – approval ballot passed; motion to publish approved
- TIA-455-2 (Impact) – motion approved to open document for revision
- TIA-455-8 (OTDR measurement) motion approved to open document for revision

Ongoing New Projects

- ANSI/TIA-604-20 (FOCIS AIM connector) – approval ballot passed, motion to publish approved