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, 05-09Oct2026 in Savannah, GA

TIA TR42 Key Activities

- Request IEEE 802.3 WG input on TIA TSB-6000
- Request IEEE 802.3 WG input on draft TSB-5073 regarding multipair extended reach Ethernet applications
- IEEE 802.3 WG invitations to E4AI and extended reach workshops

IEEE 802.3 Working Group input on TIA TSB-6000

- **Entire document open for comment**
- **Specific feedback requested by TIA TR42.1**
  1. Normative References section
     - Is IEEE 802.3 standard listed in the correct manner?
  2. Request input on SPE section formatting
  3. Ethernet tables for MMF and SMF
     - Speeds over 100G – want to make sure correct values are used.

Request IEEE 802.3 Working Group Input on TSB-5073

Multipair extended reach Ethernet applications

- Objective: TIA document to provide implementation guidelines to extend link length beyond 100M standards-imposed limit
- TIA TR42.7 has created a draft document, TSB-5073, draft 3
- TIA TR42.7 seeks commentary from IEEE 802.3 WG on this document

Update

- Two ad hoc meetings, led by George Zimmerman, held on 14Oct and 29Oct to facilitate document review by IEEE 802.3 WG members
- Comments were generated along with a liaison letter
- These documents will be balloted in closing plenary

IEEE 802.3 WG invitations - E4AI and extended reach workshops

- Liaison letters from IEEE 802.3 Working Group presented to the TIA TR42 Engineering Committee at Opening Plenary
- Significant interest expressed by TIA TR42 members

Update:

- IEEE 802.3 NEA announced a teleconference workshop to explore industry direction on fiber optic connector development.
- “Ethernet for AI (E4AI) Assessment - Next Generation Fiber Optic Connectors Workshop”
- Date: 03Dec2026, 10am – 2pm, EST
- Please refer to IEEE 802.3 Call and Meeting calendar for details at https://www.ieee802.org/3/calendar.html

TR 42.1 - *Premises Telecommunications Infrastructure*

Comment Resolution

- TIA-942 Addendum – resolved comments
- TIA TSB-6000 (Application Tables) – resolved comments

Upcoming Ballots

- ANSI/TIA-5017 (Security) – limited recirculation ballot
- TIA-5018 (Distributed Antenna Systems) – call for comments
- ANSI/TIA-942 Addendum (Data Center) – call for comments
- TSB-6000 (Application Tables) – call for comments

Upcoming Interim Meeting

- **05Nov2026, 10AM – 12PM EST** – comment resolution for ANSI/TIA-568.1-F

TR 42.3 – *Commercial Building Telecommunications Pathways & Spaces*

Comment Resolution:

- ANSI/TIA-606-E (Administration) (TR423-2026-10-017)
  - Comment resolution completed
  - Recirculation ballot approved with conditional approval to publish

- ANSI/TIA-569-F (Pathways & Spaces) (TR423-2026-10-016)
  - Ballot closed on 26Oct2026
  - Interim meeting will be scheduled in early November

- No maintenance needed for ANSI/TIA-5048 (AIM) & Addendum because standard was reaffirmed in 2024

TR 42.5 – *Telecommunications Infrastructure Terms & Symbols*

Discussion

- Proposed changes to TR42 Dictionary
  - See the following slides for the decisions TR42.5 made
- TR42 Dictionary format
  - some inconsistencies noted; the group will continue this discussion at a future meeting to make the format cleaner
  - Discussed the possibility of creating a master sheet to track which TIA documents use each term
- Announced the upcoming Chair/Vice Chair election in Jan 2027

TR 42.7 - *Telecommunications Copper Cabling Systems*

- ANSI/TIA-5071, Requirements for Field Test Instruments and Measurements for Balanced Single Twisted-Pair
    - Published

- ANSI/TIA-568.6 (Single Pair Multi-Drop (SPMD))
    - Nothing new to review – Agreed to remove from future agendas until new contributions are available

- Output documents / liaisions
    - TSB-5073 Draft 3 to IEEE 802.3 after comments have been implemented
    - Draft reviewed by IEEE 802.3 WG members during ad hoc meetings

TR 42.9 - *Industrial Telecommunications Infrastructure*

- ANSI/TIA-1005-B
  - Ballot comments resolved
  - Motion approved to publish upon approval of TIA 568.1-F and validation of terms and definitions.
- Motion approved to submit a PAR for an Addendum to TIA-568.7 for 100BASE-T1L SPE
- Drafted a liaison letter back to ODVA

TR 42.11 - *Optical Fiber Systems*

Document Development

ANSI/TIA-568.3-F [Optical Fiber Cabling and Components]:

Reviewed Ballot 5 Call for Comments and comment resolution.

Motion approved for Call for Comments Ballot 6.

ANSI/TIA-526-7 [Measurement of Optical Power Loss of SM Fiber Cable Plant]

Motion approved for PAR and ballot as Call for Comment to adopt IEC 61280-4-2 edition 3 and current amendments.

TR42.11-2026-06-008 [Port Mapping TSB-5074]

Reviewed Ballot 1 Call for Comments and comment resolution.

Motion approved for Call For Comments Ballot 2.

TSB-xxx: [Polarity Management for 2×2 Multicore Fiber (MCF) Cabling and Connectivity]

Motion approved for PAR and ballot as Call for Comments.

Contributions

TR42.11-2026-10-008: Reviewed TIA MPO Performance Relative to GR-1435.

Agreed to develop contribution to compare TIA, IEC, GR-326, GR-1435.

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

Published Documents (0)

- None this time

Reaffirmed Documents (0)

- None this time

Withdrawn Documents (0)

- None this time

Maintenance Projects (5)

- TIA-455-2 (FOTP-2 Impact) – comment resolution completed; motion approved to circulate approval ballot & publish if no technical comments
- TIA-455-8 (FOTP-8 OTDR measurement) – comment resolution completed; motion approved to circulate approval ballot & publish if no technical comments
- TIA-455-32 (FOTP-32 Circuit Discontinuities) – action to circulate call for comment #1
- TIA-455-226 (FOTP-226 SM OTDR Calibration) – In circulation, closing after meeting
- TIA-604 (FOCIS) – reviewed working draft; action to circulate call for comments #1

Additional Topics/Contributions

- List of questions was discussed to bring up at the IEEE workshop meeting in Dec; the questions will be added at the end of the TIA slide deck
- Discussion with TIA (Tom McGarry) to prepare list of FOTP (455 series) documents