

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**
- **Chris DiMinico is outgoing liaison from IEEE 802.3 to TIA TR-42**

Agenda and TIA Meeting Overview

- **Most recent TR-42 Plenary week:
January 30 – February 3, 2022 in Tampa FL, web**
- **Review TR-42 subcommittee activities**
 - **8 subcommittees met**
- **Update on project development**

TIA TR-42 Activities

- **TR-42.1 (Premises Infrastructure)**
 - **New project, TSB to describe support of applications by various cabling types, result of IEEE TG**
 - **ANSI/TIA-568.1-E-1, “Generic Telecommunications Cabling for Customer Premises, Addendum 1: To add single-pair and WAP, authorized publication**
 - **ANSI/TIA-942-C, “Telecommunications Infrastructure Standard for Data Centers, Comments resolved and fourth ballot circulated**

TIA TR-42 Activities

- **TR-42.1 (Premises Infrastructure), cont.:**
 - **ANSI/TIA-570-E, revision of residential cabling standard, first ballot to be circulated**
 - **ANSI/TIA-758-C, “Customer-Owned Outside Plant Telecommunications Infrastructure Standard” circulated for default ballot**
 - **ANSI/TIA-4966-1, addendum to the education standard to include single pair, authorized publication**

TIA TR-42 Activities

- **TR-42.1 (Premises Infrastructure), cont.:**
 - **ANSI/TIA-1179-B, “Healthcare Facility Telecommunications Infrastructure Standard”** Comments resolved, default ballot to be circulated
 - **ANSI/TIA- 5017-A, “Telecommunications Physical Network Security Standard”** Comments partially resolved, to be finished in a interim meeting yet to be scheduled

TIA TR-42 Activities

- **TR-42.3 (Pathways, Spaces, and Grounding):**
 - **New project, ANSI/TIA-569-E, Pathways and Spaces**
 - **New project, ANSI/TIA-607-E, Grounding and Bonding**
- **TR-42.5 (Terms and Symbols):**
 - **Definitions, acronyms, units of measure, and symbols maintained in a working document**

TIA TR-42 Activities

- **TR-42.7 (Copper Cabling):**
 - **New project, ANSI/TIA-568.2-E, Copper systems and components, industry ballot to be circulated**
 - **ANSI/TIA-568.5-1, “Single Twisted-Pair Cabling and Components Standard Addendum 1, some corrections” Circulating for third industry ballot**
 - **ANSI/TIA-1183-B, “Measurement Methods and Test Fixtures for Balunless Measurements of Balanced Components and Systems” approved for publication**

TIA TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 - **New project: ANSI/TIA-568.6, “Single-Pair Multidrop Cabling and Components Standards” under development**
 - **TSB-184-A-2, “Guidelines for Supporting Power Delivery over Balanced Single Twisted-Pair Cabling” Approved for circulation of third committee ballot**

TIA TR-42 Activities

- **TR-42.9 (Industrial Infrastructure):**
 - **ANSI/TIA-1005-B, “Telecommunications Infrastructure Standard for Industrial Premises” comments resolved, default ballot to be circulated**
 - **ANSI/TIA-568.7, “Balanced Single Twisted-Pair Communications Cabling and Components Standard for Industrial Premises” comments partially resolved, to be finished in interim meeting Feb 15**

TIA TR-42 Activities

- **TR-42.11 (Optical Fiber Systems):**
 - **Tier 1 (OLTS) vs Tier 2 (OTDR) testing requirements**
 - Reviewed Task Group meeting outcome from 1/12/2023.
 - Recommended adding the terms RTM (reference test method) and ATM (alternative test method) to align with international SDOs.
 - Majority agrees that LSPM should be the default method for Tier 1 testing as it provides more accuracy. There is a proposal to add OTDR as alternative for Tier 1 testing. Task Group will meet again to further define the LSPM vs OTDR and Tier 1 vs Tier 2 requirements.

TIA TR-42 Activities

- **TR-42.11 (Optical Fiber Systems), cont.:**
 - **ANSI/TIA-568.3-E Addendum Optical Fiber Cabling and Components.**
 - **Reviewed VSFF Task Group status on polarity of SN/MDC connectivity. Concern was raised that the SN and MDC connectors are not standardized in TIA and should not be specified in TIA-568.3.**
 - **Further discussions on incorporating the symbols from TSB-5069. Task Group will meet to determine path forward.**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables):**
 - **ANSI/TIA-492 series restructuring project**
 - **ANSI/TIA-4920000-C, Adoption with modification of IEC 60793-2 Ed9. In ballot, closes on April 3.**
 - **ANSI/TIA-492AAAF-1, Adoption with modification of IEC 60793-2-10 Ed7.1. Motion passed to ballot document.**
 - **Revision of ANSI/TIA-598-D-2014 Optical Fiber Color Coding**
 - **Ink drawdown procedure proposal was presented. The taskforce group will meet prior to the next TIA meeting to review the procedures in detail and revise if needed. The agreed procedure will be used for the next phase of the Munsell/CIELAB round robin study.**
 - **An interim meeting (CommScope/Corning/OFS) is scheduled for 3/15/2023 to revise the ink drawdown procedure document.**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **ANSI/TIA-455-3 (FOTP-3) Temperature Ramps and Precision**
 - **Need to go to re-ballot. If no technical comments, moves to publication in April.**
 - **ANSI/TIA-455-111 (FOTP-111), adoption of IEC 60793-1-34 Measurement methods – Fibre curl. Published.**
 - **~30 FOTP documents have passed the stability date, will need to be reaffirmed or adopt IEC documents. TR42.12 leadership will review and potentially bring PARs at next meeting.**

TIA TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology)**
 - **IEC adoption projects continue to progress.**
 - **ANSI/TIA-621.1, adoption of IEC 61755-1:2022 General and guidance. Approved for committee ballot. Waiting for IEC document.**
 - **ANSI/TIA-622.1, adoption of IEC 61755-2-1:2022 Non-angled physically contacting fibres. Approved for committee ballot. Waiting for IEC document.**
 - **ANSI/TIA-622.2, adoption of IEC 61755-2-2:2022 Angled physically contacting fibres. Approved for committee ballot. Waiting for IEC document.**
 - **ANSI/TIA-622.4, adoption of IEC 61755-2-4:2015 Non-angled physically contacting fibres, reference connection. Approved for publication.**
 - **ANSI/TIA-622.5, adoption of IEC 61755-2-5:2015 Angled physically contacting fibres, reference connection. Approved for publication.**

TIA TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology), cont.**
 - **Feedback requested from the QSFP-DD and OSFP MSAs on the dual-LC and dual-MPO belly-to-belly pitch specifications. This is important to define in order to avoid mating issues with adjacent transceivers. Feedback will be shared with the MSAs and discussions will continue whether to define a minimum, a maximum or both and what the specific values or ranges should be.**

Upcoming TIA Meetings

TR-42 Plenary Meetings

June 4-9, 2023

To be hybrid Face-to-face and virtual

www.tiaonline.org

Thank you

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