


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:
February 6 - 10, 2017 in Philadelphia, PA**
- **Review TR-42 subcommittee activities**
 - 11 subcommittees met
- **Update on project development**
-  **This symbol highlights key points of interest**

TIA TR-42 Liaison Letter to IEEE 802.3

- **The TIA TR-42 Joint Task Group on Single-pair Cabling is discussing optional connectors appropriate for single-pair cabling applications, including those under consideration by the IEEE P802.3cg 10 Mb/s Single Twisted Pair Ethernet Task Force, both for benign (i.e., M₁I₁C₁E₁) and harsh environments**
- **MICE Environmental classification tables from ANSI/TIA-568.0-D provided for reference**

TIA TR-42 Liaison Letter to IEEE 802.3, cont.

- **Information regarding performance characteristics, including those referenced below, is requested:**
 - **Frequency range**
 - **Number of connections for various use cases**
 - **Gage of cables envisioned for various use cases**
 - **Use case environments beyond those described in the MICSE Environmental tables**

TIA TR-42 Liaison Letter to IEEE 802.3, cont.

- **Please provide information on the following parameters as they relate to support of the IEEE Std 802.3bwTM-2015 and IEEE Std 802.3bpTM-2016 applications:**
 - **Mode conversion requirements for 1000BASE-T1
Optional link segment type B**
 - **Delay characteristics for 100BASE-T1**

TIA TR-42 Activities

- **TR-42.1 (Commercial Building Cabling):**
 - **New project: ANSI/TIA-1179-A “Healthcare Facility Telecommunications Infrastructure Standard” circulating for default ballot**
 - **New project: ANSI/TIA-942-B “Telecommunications Infrastructure Standard for Data Centers” circulating for default ballot**
 - **New project: ANSI/TIA-568.D-0-1, “Updated References, Accommodation of New Media Types” circulating for industry ballot**

TIA TR-42 Activities

- **TR-42.1 (Commercial Building Cabling), cont.:**
 - **New project: ANSI/TIA-568.D-1-1, “Updated References, Accommodation of New Media Types” circulating for industry ballot**
 - **New project: ANSI/TIA-570-D, “Residential Telecommunications Standard” under development**
 - **New project: ANSI/TIA-758-C, “Customer-Owned Outside Plant Telecommunications Infrastructure Standard” under development**

TIA TR-42 Activities

- **TR-42.1 (Commercial Building Cabling), cont.:**
 - **New project: ANSI/TIA-862-B-1, “Updated References, Accommodation of New Media Types” under development**
 - **New project: ANSI/TIA-4966-1, “Updated References, Accommodation of New Media Types” under development**
 - **New project: ANSI/TIA-xxxx, “Places of Assembly” under development**

TIA TR-42 Activities

- **TR-42.3 (Pathways and Spaces):**

-  – **New project: ANSI/TIA-569-D-2 “Guidelines for Supporting Remote Powering” circulating for committee ballot**

- **TR-42.5 (Terms and Symbols):**



- **Definitions, acronyms, units of measure, and symbols maintained in a working document**
- **New project: ANSI/TIA-440-C, “Fiber Optic Terminology” circulating for default ballot**

TIA TR-42 Activities


- **TR-42.6 (Infrastructure Administration):**
 - **New project: ANSI/TIA-606-C, “Administration Standard for Telecommunications Infrastructure” circulating for default ballot with conditional approval for publication**
 - **New project: ANSI/TIA-5048, “Adaption of ISO/IEC 18598” circulating for default ballot with conditional approval for publication**

TIA TR-42 Activities

- **TR-42.7 (Copper Cabling):**



-  – **TSB-5021, “Guidelines for the use of Installed Cabling to Support 2.5GBASE-T and 5GBASE-T” approved for publication**
-  – **TSB-184-A, “Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling” approved for publication**
- **ANSI/TIA-1183-A, “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-568.4-D, “Broadband Coaxial Cabling and Components Standard” circulating for industry ballot**
 -  – **New project: ANSI/TIA-568.2-D, “Balanced Twisted-Pair Telecommunications Cabling and Components Standard” circulating for committee ballot**
 - **Task Group formed to study testing and application of end plugs**

TIA TR-42 Activities

- **TR-42.9 (Industrial Infrastructure):**

-  – **New project: ANSI/TIA-1005-A-2, “1G Industrial Cabling for Four Pair (100 meters) (1000BASE-T) for E2 and E3 Environments” circulating for committee ballot**
-  – **New project: ANSI/TIA-1005-A-3, “1G Industrial Cabling for One Pair Type B (40 meters) (1000BASE-T1) for E2 and E3 Environments” circulating for subcommittee “mock” ballot review**

TIA TR-42 Activities

- **TR-42.10 (Sustainable Information Communications Technology)**
 - **New project: TSB-5046, “Standard Process for Sustainable Information Communications Technology Manufacturers” circulating for default ballot with conditional approval for publication**
- **TR-42.11 (Optical Fiber Systems):**
 - **No activity to report**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables):**
 - **New project: ANSI/TIA-455-95-A, “FOTP-95 Absolute Optical Power Test for Optical Fibers and Cables” circulating for industry ballot**
 - **New project: ANSI/TIA-598-D-1, “Optical Fiber Color Coding in Cable, Addendum for Additional Colors” circulating for committee ballot**
 - **New project: ANSI/TIA-598-D-2, “TBD - OM5 Jacket Color” under development**
 - **10+ documents circulating for reaffirmation or committee ballot**

TIA TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology)**
 - **New project: ANSI/TIA-455-171-B, "FOTP-171 IEC 61300-3-4 Attenuation by Substitution Measurement for Short Length Multimode Graded Index and Single-Mode Optical Fiber Cable Assemblies" circulating for industry ballot**
 - **New project: TIA-604-18-A, "FOCIS-18 Fiber Optic Intermateability Standard Type 1x16 and 2x16 Multifiber Push-on/ Multifiber Termination Push-on" circulating for industry ballot**

TIA TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology), cont.**
 - **New project: ANSI/TIA-604-5-F, "FOCIS 5 - Fiber Optic Connector Intermateability Standard, Type MPO (Multi-fiber Push On)" under development**
- **TR-42.16 (Grounding and Bonding):**
 - **ANSI/TIA-607-C-1, "Bonding in Multi-tenant Buildings" published**

Upcoming TIA Meetings

TR-42 Plenary Meetings
June 11 - 16, 2017
Quebec City, Quebec, CAN
www.tiaonline.org

Thank you

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