


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

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Teleconference Update
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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:
Oct 2 - 9, 2020 via GoToWebinar**
- **Review TR-42 subcommittee activities**
 - 8 subcommittees met
- **Update on project development**
-  **This symbol highlights key points of interest**

TIA TR-42 Liaison Letter to IEEE 802.3


- **TIA TR-42 requests communications regarding early draft P802.3da specifications**
- **Background:**
 - **TIA TR-42.7 has embarked on a project to specify cabling and components that will enable plug-and-play configuration of mixing segments for multidrop single-pair Ethernet**
 - **The electrical parameters of the interface to the attached node, including a stub, are expected to impact performance characteristics**

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

- **Background, cont.**
 - **Early information regarding these electrical parameters will be useful in developing cabling requirements**
 - **A collaborative approach in developing TIA cabling specifications and IEEE P802.3da PHY specifications will be important and may depend on whether the node supports powering or not**
- **TIA and IEEE 802.3 administration are working to develop a collaborative sharing agreement**

TIA TR-42 Activities

- **TR-42.1 (Premises Infrastructure):**

-  – **New project: ANSI/TIA-568.0-E-1, “Generic Telecommunications Cabling for Customer Premises, Addendum 1: Single Balanced Twisted-pair Use Cases and Topology” circulating for industry ballot**
- **New project: ANSI/TIA-758-C, “Customer-Owned Outside Plant Telecommunications Infrastructure Standard” circulating for industry ballot**


TIA TR-42 Activities

- **TR-42.1 (Premises Infrastructure), cont.:**
 - **New project: ANSI/TIA-862-C, “Structured Cabling Infrastructure Standard for Intelligent Building Systems” circulating for industry ballot**
 - **New project: ANSI/TIA-4966-A, Telecommunications Infrastructure Standard for Educational Facilities” circulating for industry ballot**
 - **New project: ANSI/TIA-942-B-1, “Telecommunications Infrastructure Standard for Data Centers, Addendum 1: Edge Data Center Infrastructure” circulating for committee ballot**

TIA TR-42 Activities



- **TR-42.3 (Pathways, Spaces, and Grounding):**
 - **New project: ANSI/TIA-606-C, “Administration Standard for Telecommunications Infrastructure” under development**
 - **New project: ANSI/TIA-607-D-1, “Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises, Addendum 1: Harmonization with ANSI/TIA-222” under development**

TIA TR-42 Activities

- **TR-42.3 (Pathways, Spaces, and Grounding), cont.:**
 - **New project: ANSI/TIA-5048-1, “Automated Infrastructure Management (AIM) Systems – Requirements, Data Exchange and Applications, Addendum 1: Adoption of ISO/IEC 18598 AMD1 ED1” under development**
- **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-D-2, “Balanced Twisted-Pair Telecommunications Cabling and Components Standard, Addendum 2: Power Delivery Over Balanced Twisted-Pair Cabling” approved for publication**
-  – **New project: ANSI/TIA-568.5, “Single Twisted-Pair Cabling and Components Standard” circulating for industry ballot**



TIA TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**

-  – **New project: ANSI/TIA-5071, “Requirements for Field Test Instruments and Measurements for Balanced Single Twisted-Pair Cabling” circulating for committee ballot**
-  – **New project: ANSI/TIA-568.6, “Single-Pair Multidrop Cabling and Components Standards” under development**
-  – **Developing PAR to start a project on support for power delivery over single-pair cabling**

TIA TR-42 Activities

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

-  – **New project: ANSI/TIA-1005-B, “Telecommunications Infrastructure Standard for Industrial Premises” circulating for committee ballot**
-  – **New project: ANSI/TIA-568.7, “Balanced Single Twisted-Pair Communications Cabling and Components Standard for Industrial Premises” under development**

TIA TR-42 Activities

- **TR-42.11 (Optical Fiber Systems):**



- **New project: ANSI/TIA-568.3-E, “Optical Fiber Cabling Components Standard” circulating for committee ballot**
- **New project: TIA-526-14-D, “Optical Power Loss Measurement of Installed Multimode Fiber Cable Plant” circulating for committee ballot**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables):**
 - **ANSI/TIA-455-62-B, “FOTP-62 Macrobending Loss (adoption of IEC 60793-1-47)” approved for publication**
 - **ANSI/TIA-455-67-A, “FOTP-67 Dry Heat (adoption of IEC 60793-1-51)” approved for publication**
 - **ANSI/TIA-455-74-A, “FOTP-74 Water Immersion (adoption of IEC 60793-1-53)” approved for publication**
 - **ANSI/TIA-455-78-C, “FOTP-78 Attenuation (adoption of IEC 60793-1-40)” approved for publication**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **ANSI/TIA-455-80-D, “FOTP-80 Cut-off Wavelength (adoption of IEC 60793-1-44)” approved for publication**
 - **ANSI/TIA-455-122-C, “FOTP-122 Polarization Mode Dispersion (adoption of IEC 60793-1-48)” approved for publication**
 - **ANSI/TIA-455-160-A, “FOTP-160 Damp Heat (Steady State) (adoption of IEC 60793-1-50)” approved for publication**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **ANSI/TIA-455-175-B, “FOTP-175 Chromatic Dispersion (adoption of IEC 60793-1-42)” approved for publication**
 - **ANSI/TIA-455-176-A, “FOTP-176 Fibre Geometry (adoption of IEC 60793-1-20)” approved for publication**
 - **ANSI/TIA-455-177-B, “FOTP-177 Numerical Aperture (adoption of IEC 60793-1-43)” approved for publication**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **New project: ANSI/TIA-455-3-C, “FOTP-3 Procedure to Measure Temperature Cycling Effects on Optical Fiber Units, Optical Cable, and Other Passive Fiber Components” circulating for industry ballot**
 - **New project: ANSI/TIA-455-178-C, “FOTP-178 Coating Strippability (adoption of IEC 60793-1-32)” circulating for industry ballot**
 - **New project: TIA-4920000-C, “Generic Specification for Optical Fibers (adoption of IEC 60793-2)” circulating for industry ballot**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **New project: ANSI/TIA-598-E, “Optical Fiber Color Coding” under development**
 - **New project: ANSI/TIA-455-111-B, “FOTP-111 Fiber Curl (adoption of IEC 60793-1-34)” under development**
 - **New project: TIA-492AAAF-A, “Sectional Specification for Category A1 Graded-Index Multimode Optical Fibers (adoption of IEC 60793-2-10)” under development**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **New project: TIA-492CAAC-A, “Sectional Specification for Class B Single-mode Optical Fibers (adoption of IEC 60793-50)” under development**

TIA TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology)**
 - **New project: ANSI/TIA-604-19, “FOCIS 19-Fiber Optic Connector Intermateability Standard, Type CS Connector” circulating for industry ballot**
 - **New project: ANSI/TIA-604-10-C, “FOCIS 10-Fiber Optic Connector Intermateability Standard, Type LC Connector” circulating for industry ballot**

Upcoming TIA Meetings

TR-42 Plenary Meetings

February 1 - 5, 2021

Virtual GoToWebinar

www.tiaonline.org

Thank you

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