

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

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*November 9, 2015*


# Introduction to TIA

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- **Telecommunications Industry Association**
- **[www.tiaonline.org](http://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

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- **Most recent TR-42 Plenary week:  
October 12 - 16, 2015 in Denver, CO**
- **Review TR-42 subcommittee activities**
  - **10 subcommittees met**
- **Update on project development**
-  **This symbol highlights key points of interest**


## 2 TIA TR-42 Liaison Letters to IEEE 802.3

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- 1. Draft 3.0 of TSB-184-A “Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling” shared and available in the private area**
- 2. Draft 0.1d of TSB-5021 “Guidelines for the Assessment and Mitigation of Installed Cabling to Support 2.5GBASE-T and 5GBASE-T” shared and available in the private area - Note that this is an early draft that has not been subject to the TIA public comment process**

# TIA TR-42 Activities

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- **TR-42.1 (Commercial Building Cabling):**
  - ANSI/TIA-862-B, “Building Automation Systems Cabling Standard” approved for publication
  -  – ANSI/TIA-568.1-D, “Commercial Building Telecommunications Cabling Standard” approved for publication
  - New project: ANSI/TIA-5017, “Telecommunications Physical Network Security Standard” circulating for default ballot

# TIA TR-42 Activities

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- **TR-42.1 (Commercial Building Cabling), cont.:**
  - **New project: ANSI/TIA-5018 “Structured Cabling Infrastructure Standard to support Distributed Antenna Systems” circulating for committee ballot**
  - **New project: ANSI/TIA-1179-A “Healthcare Facility Telecommunications Infrastructure Standard” circulating for committee ballot**
  - **New project: ANSI/TIA-942-B “Telecommunications Infrastructure Standard for Data Centers” under development**


# TIA TR-42 Activities

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- **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 industry ballot
- **TR-42.6 (Infrastructure Administration):**
  - New project: ANSI/TIA-606-B-1, “Automated Infrastructure Management Systems” circulating for industry ballot

# TIA TR-42 Activities

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- **TR-42.7 (Copper Cabling):**
  - **New project: ANSI/TIA-1183-1, “Test Fixtures for Balunless Measurements of Balanced Components and Systems to 2 GHz” circulating for industry ballot**
  -  – **New project: TSB-184-A, “Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling” circulating for committee ballot (draft 3.0 available in the IEEE P802.3bt private area)**



# TIA TR-42 Activities

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

-  – **New project: ANSI/TIA-568-C.2-1, “Balanced Twisted-Pair Telecommunications Cabling and Components Standard, Addendum 1: Specifications for 100Ω Category 8 Cabling” circulating for committee ballot (draft 3.2 available in the IEEE P802.3bq private area)**
  - **2-connector, 30-meter channels**
  - **2-connector, 24-meter permanent links**
  - **Direct attach**
  - **1 MHz - 2 GHz frequency bandwidth**

# TIA TR-42 Activities


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

-  – **Class II channel performance criteria/limits documented**
- **The Class II task group is working to capture the category 8.2/class II transmission and electrical performance for cables, connectors, channel, permanent link, and patch cords as they exist in ISO '11801-1 now and present it to TR-42.7 for further guidance**

# TIA TR-42 Activities

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- **TR-42.7 (Copper Cabling), cont.:**
  - **New project: ANSI/TIA-1152-A, “Requirements for Field Test Instruments” circulating for committee ballot**
  -  – **New project: TSB-5021, “Guidelines for the use of Installed Cabling to Support 2.5GBASE-T and 5GBASE-T” under development (draft 0.1d available in the IEEE P802.3bz private area)**

# TIA TR-42 Activities



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- **TR-42.7 (Copper Cabling), cont.:**
  - **New project: ANSI/TIA-568.2-D, “Balanced Twisted-Pair Telecommunications Cabling and Components Standard” opened (development to begin after ANSI/TIA-568-C.2-1 is approved for publication)**
  - **New project: ANSI/TIA-568.4-D, “Broadband Coaxial Cabling and Components Standard” opened (development to begin after ANSI/TIA-568-C.2-1 is approved for publication)**

# TIA TR-42 Activities

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

-  – **New project: ANSI/TIA-1005-A-x, “Industrial cabling for one pair Link Segment Type B, 1000BASE-T1 including MICE 2 and MICE 3” under development**
-  – **New project: ANSI/TIA-1005-A-x, “Performance requirements for four-pair industrial cables and cabling supporting 1000BASE-T for MICE2 and MICE3 environments” under development**

# TIA TR-42 Activities

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- **TR-42.10 (Sustainable Information Communications Technology)**
  - **New project: ANSI/TIA-5011, “Standard Process for Sustainable Information Communications Technology Manufacturers” under development**

# TIA TR-42 Activities

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



- **New project: ANSI/TIA-568.3-D: "Optical Fiber Cabling and Components Standard" circulating for industry ballot**
- **New project: TSB-5040: "Understanding Duplex and Single Row Fiber Polarity" under development**

- **TR-42.12 (Optical Fibers and Cables):**

- **ANSI/TIA-455-25-D, "FOTP-25 Impact Testing of Optical Fiber Cables" approved for publication**

# TIA TR-42 Activities

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- **TR-42.12 (Optical Fibers and Cables), cont.:**

- **New project: ANSI/TIA-598-D-1, “Optical Fiber Color Coding in Cable, Addendum for Additional Colors” circulating for industry ballot**



- **New project: TIA-492AAAE, “Detail Specification for 50- $\mu$ m Core Diameter/125- $\mu$ m Cladding Diameter Class 1a Graded-Index Multimode Optical Fibers with Laser-Optimized Bandwidth Characteristics Specified for Wavelength Division Multiplexing” circulating for committee ballot**


- **10+ documents circulating for reaffirmation or committee ballot**



# TIA TR-42 Activities

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- **TR-42.13 (Passive Optical Devices and Metrology):**

-  – **ANSI/TIA-604-18, “Fiber Optic Connector Intermateability Standard Type MPO-16 (FOCIS-18)” approved for publication**
- **TIA-604-5-E: “Fiber Optic Connector Intermateability Standard, Type MPO (Multi-fiber Push On) (FOCIS 5)” approved for publication**

# TIA TR-42 Activities

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- **TR-42.13 (Passive Optical Devices and Metrology) cont.:**
  - **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 committee ballot**
- **TR-42.16 (Grounding and Bonding):**
  - **ANSI/TIA-607-C, "Structural Metal" approved for publication**

# Upcoming TIA Meetings

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## **TR-42.7 Interim Meeting**

**December 8 - 9, 2015**

**Miami, FL**

## **TR-42 Plenary Meetings**

**January 25 - 29, 2016**

**New Orleans, LA**

**[www.tiaonline.org](http://www.tiaonline.org)**

**Thank you**

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