

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

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San Diego, CA
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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:**
Jun 11 – Jun 15, 2018 in Pittsburgh, PA
- **Review TR-42 subcommittee activities**
 - 8 subcommittees met
- **Update on project development**
-  **This symbol highlights key points of interest**

TIA TR-42 Activities

- **TR-42.1 (Premises Infrastructure):**
 - **ANSI/TIA-570-D, “Residential Telecommunications Standard” approved for publication**
 - **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-568.0-D-2, “Generic Telecommunications Cabling for Customer Premises, Addendum 2: Single Balanced Twisted-pair Use Cases and Topology” under development**
-  – **New project: ANSI/TIA-862-B-2, “Structured Cabling Infrastructure Standard for Intelligent Building Systems, Addendum 2: Single Balanced Twisted-pair Use Cases and Topology” under development**

TIA TR-42 Activities

- **TR-42.1 (Premises Infrastructure), cont.:**



-  – **New project: ANSI/TIA-568.0-E, “Generic Telecommunications Cabling for Customer Premises” PAR initiated**
-  – **New project: ANSI/TIA-568.1-E, “Commercial Building Telecommunications Infrastructure Standard” PAR initiated**
- **New project: ANSI/TIA-4966-A, Telecommunications Infrastructure Standard for Educational Facilities” PAR initiated**

TIA TR-42 Activities

- **TR-42.3 (Pathways, Spaces, and Grounding):**
 -  – **ANSI/TIA-569-D-2, “Guidelines for Supporting Remote Powering” approved for publication**
 - **New project: ANSI/TIA-569-E, “Commercial Building Standard for Telecommunications Pathways and Spaces” circulating for industry ballot**
- **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):**

-  – **ANSI/TIA-568.2-D, “Balanced Twisted-Pair Telecommunications Cabling and Components Standard” approved for publication**
- **TSB-190, “Guidelines on Shared Pathways and Shared Sheaths”, reaffirmed**
-  – **New project: TSB-184-A-1, “Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling: Addendum 1, Guidance to Support 28 AWG Cords” circulating for committee ballot**

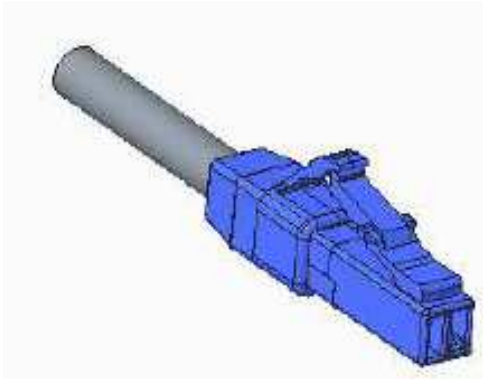
TIA TR-42 Activities

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

-  – **New project: ANSI/TIA-568.5, “Single Twisted-pair Cabling and Components Standard” under development**
-  – **5 single balanced pair connector proposals are under consideration for MICE1 environments:**
 - **Variant 1: CommScope**
 - **Variant 2: HARTING**
 - **Variant 3: Phoenix Contact**
 - **Variant 4: Reichle & De-Massari AG**
 - **Variant 5: The Siemon Company**

TIA TR-42 Activities

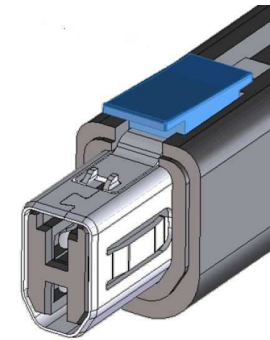
- **TR-42.7 (Copper Cabling), cont.:**



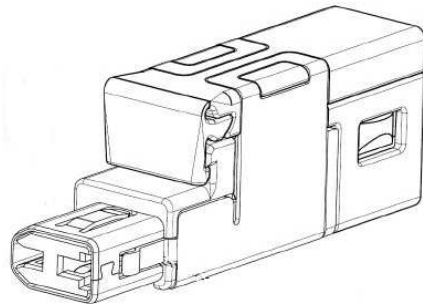
CommScope



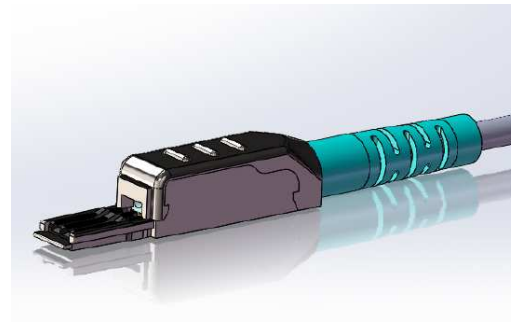
HARTING



Phoenix Contact



Reichle & De-Massari

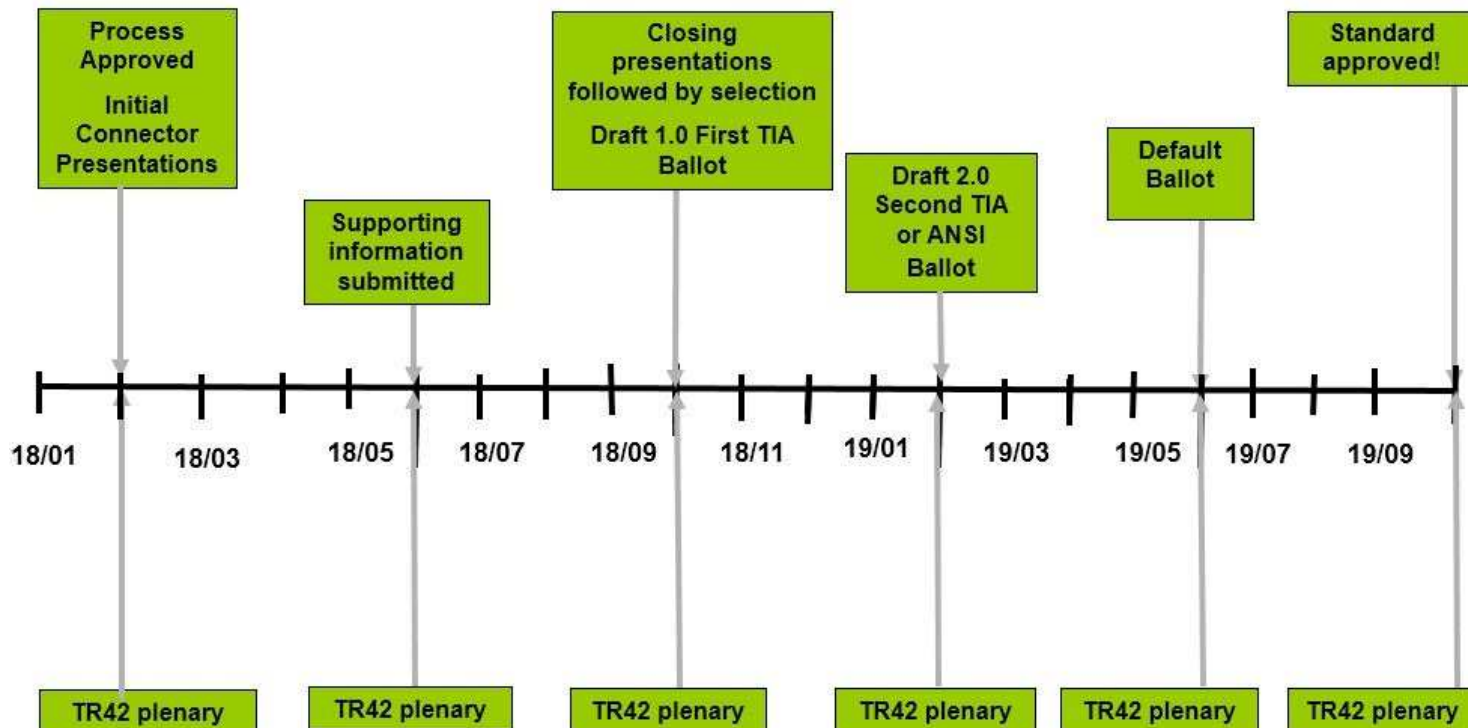


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TIA TR-42 Activities

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


- ☞ – **Approved single balanced pair connector selection and specification timeline**



TIA TR-42 Activities


- **TR-42.7 (Copper Cabling), cont.:**
 - **New project: ANSI/TIA-568.2-D-1, “Balun Specifications for Testing Category 8 Cabling and Components” under development**
 -  – **Task Group studying category 8 short channel alien crosstalk**
 -  – **Task Group examining and gaining insight on the electrical performance levels of all categories of cabling above 60°C/140°F**
 -  – **Task Group developing installation guidelines for cords in vertical cable managers for possible inclusion in TSB-184-A-1**

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 committee ballot**


TIA TR-42 Activities

- **TR-42.9 (Industrial Infrastructure), cont.:**

-  – **New project: ANSI/TIA-PN-1005-A-4, “Telecommunications Infrastructure Standard for Industrial Premises, Addendum 4: Single Balanced Twisted-pair Use Cases and Topology for Industrial Premises” under development**

TIA TR-42 Activities

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

-  – **New project: ANSI/TIA-568.3-D-1, “Optical Fiber Cabling Component Standard - Addendum 1, General Updates” circulating for default ballot**
- **New project: TSB-XXXX, “Optical Fiber Channel Polarity - Duplex - Single Row Fiber - Double Row Fiber Polarity” under development**


TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables):**
 - **ANSI/TIA-598-D-1, “Optical Fiber Color Coding in Cable, Addendum for Additional Colors” approved for publication**
 - **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-455-244-A, “FOTP-244-A Methods for Measuring the Change in Transmittance of Optical Fibers in Expressed Buffer Tubes When Subjected to Temperature Cycling” under development**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **New project: TIA-4920000-C, adopt IEC 60793-2, "Generic Specification for Optical Fibers" under development**
 - **New project: TIA-492AAAF, adopt IEC 60793-2-10, "Sectional Specification for Category A1 Graded-Index Multimode Optical Fibers" under development**
 - **New project: TIA-492CAAC, adopt IEC 60793-2-50, "Sectional Specification for Class B Single-mode Optical Fibers" under development**

TIA TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 -  **“MMF for the Purposes of WDM Applications” Task Group renamed to “VCSEL Weighting Functions” Task Group and tasked with reassessing and changing, as necessary, the TIA-specified VCSEL DMD weighting functions throughout the wavelength range of interest**
 - **Multimode transceiver companies are requested to participate**
 - **Teleconference(s) anticipated in coming months**
 - **Contact Bulent Kose: bko@panduit.com**

TIA TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology)**
 - **TIA-604-18-A, "FOCIS-18 Fiber Optic Intermateability Standard Type 1x16 and 2x16 Multifiber Push-on/ Multifiber Termination Push-on" approved for publication**
 - **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**

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)" circulating for default ballot**

Upcoming TIA Meetings

TR-42 Plenary Meetings

October 1 - 5, 2018

Phoenix, AZ

www.tiaonline.org

Thank you

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