

TIA TR-42 Liaison to IEEE 802.3


Valerie Maguire

**July, 2014
San Diego, CA**

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 Meeting Overview

- **Most recent TR-42 Plenary meetings:
June 9 - 13, 2014 in Coronado, CA**
- **Review TR-42 subcommittee activities**
 - **11 subcommittees met**
- **Update on project development**
-  **This symbol highlights key points of interest**



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- **A task group within TIA TR-42.7 has been formed to investigate “High Performance Structured Cabling (HPSC) Applications”**
- **Scope is to identify, analyze, and recommend use cases (e.g., switch fabric architectures, end-of row, and top-of-rack) for HPSC environments utilizing 10GBASE-T and proposed 40GBASE-T**

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- **The task group will develop a TSB that can be used as a guide when designing networks and facilities for high speed applications, including 40GBASE-T**
- **As this TSB is focused on designing networks and facilities in support of IEEE 802.3 applications such as 40GBASE-T, TIA would appreciate any input regarding this initiative**

TR-42 Activities

- **TR-42.1 (Commercial Building Cabling):**
 -  – **New project: ANSI/TIA-568.0-D, “Generic Telecommunications Cabling for Customer Premises” industry ballot on hold**
 -  – **New project: ANSI/TIA-568.1-D, “Commercial Building Telecommunications Cabling Standard” industry ballot on hold**
 - **New project: ANSI/TIA-862-B, “Building Automation Systems Cabling Standard” circulating for industry ballot**

TR-42 Activities

- **TR-42.1 (Commercial Building Cabling), cont.:**
 - **New project: ANSI/TIA-xxxx, “Telecommunications Physical Network Security Standard” under development**
 - **New project: ANSI/TIA-xxxx “Structured Cabling Infrastructure Standard to support Distributed Antenna Systems” under development**

TR-42 Activities

- **TR-42.2 (Residential Infrastructure):**
 - Subcommittee disbanded
- **TR-42.3 (Pathways and Spaces):**
 - New project: ANSI/TIA-569-D “Commercial Building Standard for Telecommunications Pathways and Spaces” circulating for industry ballot


TR-42 Activities

- **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” on hold**

TR-42 Activities

- **TR-42.6 (Infrastructure Administration):**
 - **New project: ANSI/TIA-606-B-1, “Automated Infrastructure Management Systems” under development**
- **TR-42.7 (Copper Cabling):**
 - **TSB-1197, “Mode Conversion Parameters for Balanced Twisted-Pair Cabling” approved for publication**


TR-42 Activities

- **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” under development (draft 2.0a posted to IEEE P802.3bq private area)**
 - **2-connector, 30-meter channels**
 - **2-connector, 24-meter permanent links**
 - **1 MHz - 2 GHz frequency bandwidth**



TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 - **Component requirements also specified**
 - **Category 8 cabling installed in a '568-C channel configuration shall at least meet category 6A performance**
 - **Slight adjustments made to coupling attenuation and insertion loss limits**
 - **Definition for “direct attach” included**
 - **Document circulating for second “mock” subcommittee ballot**


TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 - **New project: ANSI/TIA-568-C.2-2, “Additional Considerations for Category 6A Patch Cord Testing” circulating for industry ballot**
 -  – **Task Group working to develop class II performance criteria/limits (channel only at this time)**



TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 -  – **New project: TSB-5008, “Mechanically-Generated Cable Impulse Noise Detection and Characterization” circulating for committee ballot**
 - **New project: ANSI/TIA-1152-A, “Requirements for Field Test Instruments” under development**
 -  – **New project: TSB-184-A, “Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling” under development**

TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 - **New project: ANSI/TIA-1183-1, “Test Fixtures for Balunless Measurements of Balanced Components and Systems to 2 GHz” under development**
 -  – **New project: TSB-xxxx, “High Performance Structured Cabling (HPSC) Applications” under development**

TR-42 Activities

- **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 publishes)**
 -  – **New project: ANSI/TIA-568.4-D, “Broadband Coaxial Cabling and Components Standard” opened (development to begin after ANSI/TIA-568-C.2-1 publishes)**


TR-42 Activities

- **TR-42.9 (Industrial Infrastructure):**
 - **New project: ANSI/TIA-1005-A, “Telecommunications Infrastructure Standard for Industrial Premises Addendum 1, M12-8 X-coding Connector for Industrial Premises” circulating for industry ballot**
 - **Noise induced on cabling carrying 1000BASE-T in E2 and E3 environments under study**

TR-42 Activities

- **TR-42.10 (Sustainable Information Communications Technology)**
 - **New project: ANSI/TIA-4994, “Standard for Sustainable Information Communications Technology” circulating for industry ballot**
 - **New project: ANSI/TIA-5011, “Standard Process for Sustainable Information Communications Technology Manufacturers” under development**

TR-42 Activities

- **TR-42.11 (Optical Fiber Systems):**
 - **New project: ANSI/TIA-526-14-C: "Optical Power Loss Measurement of Installed Multimode Fiber Cable Plant" circulating for industry ballot**
 -  – **New project: ANSI/TIA-568.3-D: "Optical Fiber Cabling Components Standard" circulating for industry ballot**
 - **Approximately 20 documents up for 5-year review**

TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables):**
 - **ANSI/TIA-598-D, “Cable Color Coding” approved for publication**
 - **ANSI/TIA-455-C, “Standard Test Procedure for Fiber Optic Fibers, Cables, Transducers, Sensors, Connecting and Terminating Devices, and other Fiber optic Components” approved for publication**
 - **20+ documents circulating for reaffirmation or committee ballot**

TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology):**
 - **New project: ANSI/TIA-604-18, “FOCIS-18 Fiber Optic Intermateability Standard Type 1x16 and 2x16 Multifiber Push-on/ Multifiber Termination Push-on” circulating for industry ballot**
 - **New project: TSB-4947: “Guidance for Adhesive Usage in Fiber Optic Components” circulating for committee ballot**

TR-42 Activities

- **TR-42.16 (Grounding and Bonding):**
 - **New project, ANSI/TIA-607-C, “Structural Metal” circulating for committee ballot**

Upcoming TIA Meetings

TR-42.7 Interim Meeting

July 29 - 30, 2014

Cambridge, MA

TR-42 Plenary Meetings

October 6 - 10, 2014

Austin, TX

www.tiaonline.org

Thank you

Contact Information:

Valerie Maguire

**The Siemon Company
101 Siemon Company Drive
Watertown, CT 06795**

phone: (602) 228-7943

valerie_maguire@siemon.com