

TIA TR-42 Liaison to IEEE 802.3

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**Vice Chair, TIA TR-42 Telecommunications
Cabling Systems Engineering Committee**

**Vice Chair, TIA TR-42.7 Copper Cabling
Subcommittee**


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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 Meeting Overview

- **June 10 - 14 in Portland, OR**
- **Review TR-42 subcommittee activities**
 - **10 subcommittees met**
- **Update on project development**
-  **This symbol highlights key points of interest**

TR-42 Activities

- **TR-42.1 (Commercial Building Cabling):**
 - **New project: ANSI/TIA-4966, “Telecommunications Infrastructure for Educational Buildings and Spaces” circulating for industry ballot**
 - **New project: TSB-162-A, “Telecommunications Guidelines for Wireless Access Points” circulating for committee ballot**

TR-42 Activities

- **TR-42.1 (Commercial Building Cabling), cont:**
 -  – **New project: ANSI/TIA-568.0-D, “Generic Telecommunications Cabling for Customer Premises” circulating for committee ballot**
 -  – **New project: ANSI/TIA-568.1-D, “Commercial Building Telecommunications Cabling Standard” circulating for committee ballot**

TR-42 Activities

- **TR-42.1 (Commercial Building Cabling), cont.:**
 - **New project: ANSI/TIA-862-B, “Building Automation Systems Cabling Standard” under development**
 - **Requirements for “Places of Assembly” under study**
 - **Requirements for “Distributed Antenna Systems” under study**


TR-42 Activities

- **TR-42.1 (Commercial Building Cabling), cont.:**
 - **Requirements for “Network Security” under study**
- **TR-42.3 (Pathways and Spaces):**
 - **Errata, “Revision to Foreword text describing differences between TIA-569-B and TIA-569-C” approved for publication**


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” circulating for industry ballot**
- **TR-42.6 (Infrastructure Administration):**
 - **No new project status updates**

TR-42 Activities


- **TR-42.7 (Copper Cabling):**
 - **New project: TSB-1197, “Mode Conversion Parameters for Balanced Twisted-Pair Cabling” under final editorial review**
 -  – **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**

TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 - Strawman draft 0.8 under development
 -  – Significant improvements to channel return loss have been made

	Frequency (MHz)	Return loss (dB)
100Ω Category 8	$1 \leq f < 10$	19.0 (TBD)
	$10 \leq f < 40$	$24 - 5 \cdot \log(f)$ (TBD)
	$40 \leq f < 130$	16 (TBD)
	$130 \leq f < 1000$	$35 - 9 \cdot \log(f)$ (TBD)
	$1000 \leq f < 2000$	8 dB (TBD)


TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 - **2-connector, 30-meter channels are currently defined**
 - **Upper frequency bandwidth specification remaining at 2 GHz**
 -  – **Subcommittee members agreed to, “Accept the concept of adding Class II performance criteria and create a task group to work on those limits”**


TR-42 Activities

- **TR-42.7 (Copper Cabling), cont.:**
 - **New project: ANSI/TIA-1152-A, “Requirements for Field Test Instruments” under development**
 - **New project: ANSI/TIA-568.4-D, “Broadband Coaxial Cabling and Components Standard” 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)**

TR-42 Activities

- **TR-42.9 (Industrial Infrastructure):**
 -  – Noise induced on cabling carrying 1000BASE-T in E2 and E3 environments under study
- **TR-42.10 (Sustainable Information Communications Technology)**
 - New project: ANSI/TIA-4994, “Standard for Sustainable Information Communications Technology” circulating for industry ballot

TR-42 Activities

- **TR-42.11 (Optical Fiber Systems):**
 - **New project: TSB-4979: "Practical Considerations for Implementation of Multimode Launch Conditions in the Field"**
circulating for committee ballot
 - **New project: ANSI/TIA-568.3-D: "Optical Fiber Cabling Components Standard "**
circulating for committee ballot

TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables):**
 - **TIA-455-204-A/FOTP-204, “Multimode Bandwidth, adoption of IEC 60793-1-41” approved for publication**
 - **TIA-598-D, “Cable Color Coding” approved for publication**
 - **New project: TIA-455-7/FOTP-7, “Numerical Aperture” circulating for committee ballot**

TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables),
cont.:**
 - **New project: TIA-455-28/FOTP-28,
“Dynamic Tension” circulating for
committee ballot**
 - **New project: TIA-455-80/FOTP-80, “Patch
Cord Wavelength” circulating for
committee ballot**

TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables), cont.:**
 - **New project: TIA-455-177/FOTP-177, “Graded-index MMF (adoption of IEC 60793-1-31)” circulating for reaffirmation ballot**
 - **New project: TIA-455-58/FOTP-58, “Core Size (adoption of IEC 60793-1-20)” circulating for reaffirmation ballot**

TR-42 Activities

- **TR-42.12 (Optical Fibers and Cables),
cont.:**
 - **New project: TIA-455-220/FOTP-220, “DMD Measurement, adoption of IEC 60793-1-4” circulating for reaffirmation ballot**
 - **20+ additional documents circulating for reaffirmation ballot**

TR-42 Activities

- **TR-42.13 (Passive Optical Devices and Metrology):**
 - Did not meet
- **TR-42.16 (Grounding and Bonding):**
 - **ANSI/TIA-607-B-2, “Structural Metal” approved for publication**

Upcoming TIA Meetings

TR-42.7 Interim Meeting

July 30 - 31, 2013

Cambridge, MA

TR-42 Plenary Meetings

October 7 - 11, 2013

Philadelphia, PA

www.tiaonline.org

Thank you

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