TIA TR-42 Liaison to IEEE 802.3

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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

• Most recent TR-42 Plenary meetings: October 6 - 10, 2014 in Austin, TX

• Review TR-42 subcommittee activities
  • 11 subcommittees met

• Update on project development

☞ This symbol highlights key points of interest
• No liaisons from TIA to IEEE 802.3
TR-42 Activities

• TR-42.1 (Commercial Building Cabling):
TR-42 Activities

• TR-42.1 (Commercial Building Cabling), cont.:
  – New project: ANSI/TIA-5018 “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 default 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” circulating for committee ballot
TR-42 Activities

• TR-42.6 (Infrastructure Administration):
  – New project: ANSI/TIA-606-B-1, “Automated Infrastructure Management Systems” under development
TR-42 Activities

• TR-42.7 (Copper Cabling):
  – ANSI/TIA-568-C.2-2, “Additional Considerations for Category 6A Patch Cord Testing” approved for publication
  – TSB-5008, “Mechanically-Generated Cable Impulse Noise Detection and Characterization” 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 (new draft expected to be available and shared soon)
    ➢ 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
  - “Direct attach” content added
  - Document circulating for third “mock” subcommittee ballot
TR-42 Activities

• 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
TR-42 Activities

• TR-42.7 (Copper Cabling), cont.:
  – New project: ANSI/TIA-1152-A, “Requirements for Field Test Instruments” 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-5019, “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 Addendum 1, M12-8 X-coding Connector for Industrial Premises” approved for publication
  - 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
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 industry ballot comment resolution in progress
TR-42 Activities

- TR-42.11 (Optical Fiber Systems):
  - New project: TSB-xxxx: "Understanding Duplex and Single Row Fiber Polarity" under development
  - Approximately 20 documents up for 5-year review

- TR-42.12 (Optical Fibers and Cables):
  - New project: ANSI/TIA-598-D-1, “Optical Fiber Color Coding in Cable, Addendum for Additional Colors” under development
TR-42 Activities

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

  – New project: TIA-492AAAE, “Detail Specification for 50-µm Core Diameter/125-µm Cladding Diameter Class 1a Graded-Index Multimode Optical Fibers with Laser-Optimized Bandwidth Characteristics Specified for Wavelength Division Multiplexing” under development

  – 10+ 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 industry ballot
Upcoming TIA Meetings

TR-42.7 Interim Meeting
December 9 - 10, 2014
Miami, FL

TR-42 Plenary Meetings
February 2 - 6, 2015
Tucson, AZ

www.tiaonline.org
Thank you

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