

Cabling Standards Updates

Telecommunications Industry Association (TIA):

During the week of February 3rd, the TIA TR-42 meeting took place in Miami, Florida. We had several very productive meetings where new projects and new topics were discussed. In the following update you will see that, once again, a lot of progress has been made.

TR 42.1 Commercial Building Telecommunications Cabling

Addendum 2 of ANSI/TIA/EIA-568-B.1, *Grounding and Bonding Specifications for Screened Balanced Twisted-Pair Horizontal Cabling* was accepted for publication at the interim meeting in December 2002 and should be available for purchase in a few weeks. This Standard specifies additional requirements for grounding (earthing) and bonding of installed screened balanced twisted-pair horizontal cables and connecting hardware.

Addendum 4 of ANSI/TIA/EIA-568-B.1, *Recognition of Category 6 and 850 nm Laser-Optimized 50/125 μ m Multimode Optical Fiber Cabling* was accepted for publication at the interim meeting in December 2002 and should be available for purchase in a few weeks. This standard recognizes balanced twisted pair category 6 cabling and 850 nm laser-optimized 50/125 μ m Multimode optical fiber cable by revising sub-clauses 4.4, 4.5, 5.3 and 11.2.2 of ANSI/TIA/EIA-568-B.1.

The TR 42.1.1 working group called *Telecommunications Cabling Infrastructure for Network Distribution Nodes* is presently working on a new standard called Telecommunications Infrastructure Standard for Data Centers. The first draft was presented at the meeting. The editing group worked hard to have a complete document ready for ballot at this meeting. It was accepted by the sub-committee TR 42.1.1 and TR 42.1 to have this first draft out for its first committee ballot.

TR 42.2 Residential Telecommunications Infrastructure

Work has started on the revision of ANSI/TIA/EIA-570-A to develop a B version. The document will include the core of ANSI/TIA/EIA-570-A, plus three new addenda and new text on optical fiber systems in the home, administration, and recommendations for testing. We are expecting a draft to be ready at the next meeting to go out for ballot. We had discussions on how to test coaxial cable in the home and on the different types of termination used for all cabling. These are subjects that will be included in the revised document.

TR 42.3 Commercial Building Telecommunications Pathways and Spaces

We resolved all comments from the draft document ANSI/TIA/EIA-569-B. Once again, there were several “no votes” and proposed changes that brought about strong debates. The next draft was approved to go out for industry ballot in the next few weeks so that comments could be reviewed at the next meeting in June 2003. The power separation requirement issue has been resolved by the proposition of a new annex that will provide additional consideration in the case where power separation may be required.

TR 42.4 Outside Plant Telecommunications Infrastructure

A new draft of ANSI/TIA/EIA-758-A was accepted to go out for an industry ballot. The main modification in this revised version of the document is the validation and modification of all the references, where required. For example, since the NEC was revised last year, references for this code needed to be updated.

TR 42.6 Telecommunications Infrastructure Administration

Since ANSI/TIA/EIA-606-A was published last year, no new substantially interesting subjects were presented. It was proposed and accepted that the sub-committee will go dormant due to lack of topics to discuss at this time. Until further notice, no future meetings have been planned.

TR 42.7 Telecommunications Copper Cabling Systems

A liaison letter was sent to IEEE 802.3 making them aware of a white paper that has been published by the Category 6 consortium on the Electrostatic Discharge (ESD) phenomena of telecommunications cables. It is the intent that some of the information contained in this paper be included in a Telecommunications Systems Bulletin (TSB) from TIA.

A number of refinements in Category 6 connecting hardware test procedures are contained in a new Annex 6 to TIA/EIA 568-B.2, which will eventually go out for ballot following the completion of the measurement task group work. Some items that have been resolved include the selection procedure for reference jacks and the return loss of the test head for measuring patch cord return loss.

A new Addendum No. 7 to TIA/EIA-568-B.2 on *Reliability Specification Requirements for Copper Connecting Hardware* will be circulated for TIA committee ballot. These requirements are intended to be used in conjunction with Addendum No. 4, which is already published and would eventually replace/supersede the requirements of ANSI/TIA/EIA-568-B.2, Annex A and Annex K.6.2.2.

Work is still ongoing on the development of the test parameters for DTE powering over telecommunications cabling. The parameters include Resistance, Resistance Unbalance, Current Capacity, Voltage Rating and Power Capacity for cables, connectors, links and channels.

TR 42.8 Telecommunications Optical Fiber Cabling Systems

Addendum 3 of ANSI/TIA/EIA-568-B.1, *Supportable Distances and Channel Attenuation for Optical Fiber Applications by Fiber Type*, was accepted for publication at the interim meeting in December 2002 and should be available for purchase in a few weeks. This addendum applies to the supportable distances and channel attenuation for optical fiber applications (10/100BASE-SX and 10G Ethernet) and one new fiber type (850-nm laser-optimized 50/125- μ m Multimode fiber).

A working group has developed a draft a Telecommunications Systems Bulletin (TSB) on *Additional Guidelines for Field-testing of Length, Optical Loss and Polarity of Optical Fiber Cabling Systems*. This document will not replace the existing ANSI/TIA/EIA-526-7 (Singlemode) and ANSI/TIA/EIA-526-14A (Multimode) standards but will provide complementary information. All ballot comments were resolved and it was proposed and accepted to have the next draft out for a second committee ballot with ballot resolution at the next meeting in June 2003.

A working group has developed a draft a Telecommunications Systems Bulletin (TSB) on the polarity of multiple fiber connectors, such as the MPO type connector. The draft document was out for ballot but due to lack of time, the subcommittee did not resolve the ballot comments at this meeting. Comment resolutions will be done via a conference call in a few weeks and the subcommittee will seek approval to have the new draft out for a second committee ballot with resolution at the next meeting in June 2003.

TR 42.9 Industrial Telecommunications Infrastructure

This group is working to develop a new standard that specifies a generic telecommunications cabling system for industrial buildings. Telecommunications cabling specified by this standard is intended to support applications in industrial environments that are subjected to extremes of temperature, humidity, electrical noise, shock, vibration, corrosive gases, dust and liquids.

The chair of TR 42.9 reviewed a project plan breaking out the work to be done for different sections of the draft Industrial Telecommunications Infrastructure standard. The intent is to complete all the sections related to Pathways and Spaces before the next meeting.

TR 42.7 / TR 42.9 joint meeting

A joint TR 42.7/TR 42.9 meeting was held Tuesday night, February 4, 2003 in Miami. A lot of discussion took place on the mechanical, environmental, chemical and electrical requirements for industrial cabling. Progress was made on using a unified approach to developing specifications for industrial cabling and components. It was agreed to classify cabling requirements according to level of severity. This classification should be closely aligned to methods that are under development by CENELEC, referred to as MICE 1, 2 & 3 for Mechanical, Environmental, Chemical and Electrical/EMC.

Next TIA meeting

The next meeting will be held in Alexandria, Virginia in June 2003.

Canadian Standards Association (CSA):

We expect that CSA will harmonize its standards with TIA/EIA. Some administrative issues within the CSA organization are creating delays in the development of Canadian standards. We suggest using the available ANSI/TIA/EIA standards in the meantime and using the Canadian Electrical Code (CEC) for the appropriate National Electrical Code (NEC) cross-reference.

International Organization for Standardization (ISO):

Nothing to report, no ISO meeting was scheduled since the TIA meeting in October 2002 in Scottsdale, AZ.

I hope this update has shed some light on what has been happening recently with the standards. If you have questions, please do not hesitate to contact the NORDX/CDT IBDN Technical Support team at 1-800-858-7954.

For copies of the published standard documents, please obtain them via Global Engineering Documents at 1-800-874-7179 (US and Canada) or via the Net at www.tiaonline.org.

Regards,

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