



Telecommunications Industry Association

1310 North Courthouse Road, Suite 890
Arlington, VA 22201 | www.tiaonline.org

Approved by General Counsel

TR-42.7 Subcommittee on Copper Cabling Systems

Meeting Date: 16 June 2021

Location: Teleconference

Approved: 28 June 2021



Meeting Report

TR-42.7

Organization: ANSI Accredited Engineering Committee TIA TR-42.7
Telecommunications Copper Cabling Systems

Date: Wednesday, June 16, 12:15 pm – 7:00 pm eastern time

Meeting Location: Web and phone

Chair: Wayne Larsen CommScope 214-587-3970
Vice-Chair: Brian Celella The Siemon Co. 860-945-8589

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TIA is actively seeking participation in TR-42.7 standards projects from the user and general interest communities.

1 ADMINISTRATIVE

1.1 Call to order

Meeting called to order at 11:15 central time on 6/16/21.

1.2 Attendance (call quorum, introductions, announce web registration code)

No web registration code for this meeting. Introductions were made. Quorum achieved with 37 of 42 members present. After a later arrival a total of 38 of the 42 quorum companies were in attendance.

company	Last Name	First Name
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Meeting Report

AESA	Dardel	Boris
Anixter	Jimenez	Andrew
Belden	Kusuma	Roy
Belden	Shuman	Brian
Belden	Siev	Virak
Belden	Tellas	Ronald
Chemours	Dawson	Fred
CME Consulting	Zimmerman	George
CommScope	Hopkinson	Wayne
CommScope	Hayes	Trent
CommScope	Larsen	Wayne
Condumex	BANOS	JORGE
Cord Data	Hess	Dave
Dan Chief	Su	Sheng-Kai
Dan Chief	Chiou	Dachen
Datacom Standards	Jones	Richard
Fluke	Winston	William
Furukawa	kuniyoshi	cristina
Harger	Emplit	Ray
Harting	Schmidt	Rainer
Hitachi	Zeleny	Jordan
Hitachi	Cornelison	Ken
Hubbell Premise Wiring	Savi	Olindo
IDEAL	Barrera	Dan
Intertek	Pelletier	Antoine
Legrand	Aekins	Rob
Leviton	Dearing	Mark
Leviton	Harpel	Todd



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Leviton	Poulsen	Jeffrey
MC Communications	Diminico	Christopher
Molex	Woodman	Brad
Molex	Rivers	Phillip
NIS	Forbes	Diane
OCC	Cozart	Jordan
ODVA/Rockwell	Jones	Cameron
Panduit	Straka	Frank
Panduit	Lenz	Sean
Panduit	Voss	Bob
Prysmian	Thwaites	Steve
R&M	Ahmed	Adnan
RIT	Bagaria	Anand
Sentinel	Jeskey	Dave
Siemon	Celella	Brian
Siemon	Maguire	Valerie
Softing	Jallo	Tom
Softing	Huedepohl	Konstantin
Sterlite	KHAN	MOHAMMAD SHAHID
Sterlite	Bhatt	Darshana
Stewart Connector	Ellis	Mark
Superior Essex	Born	Steve
Surtec	Pickles	Tim
Telegartner	Ehredt	Al
TIA	Thibideau	Cheryl
TIA	Jenkins	Teesha
UL LLC	Tassone	Anthony
UL LLC	Vanderlaan	Paul



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Vaden Enterprises	Vaden	Sterling
Vericom	Waqaa	A S

Brian Celella to be minute taker.

- 1.3 Intellectual Property Rights Policy – The Chair reviewed this statement and called for patent disclosures. No patent disclosures were made.

"TIA's Intellectual Property Rights Policy can be found in Statements of Policy (ANNEX C) and other clauses and annexes of this document. Participants in the work of the TIA Formulating Groups are urged to review the appropriate sections. Individual participants are encouraged to notify TIA of any patent(s) or published pending patent application(s) of which they are aware that may be essential to the practice of a proposed TIA Publication, including requirements introduced through normative references, early on in the development to reduce the possibility for delays in the development process and increase the likelihood that the proposed TIA Publication will become a Standard. However, a Patent Holder who has provided TIA with a TIA Patent Holder Statement with respect to the applicable proposed TIA Publication need not (but may elect to) identify its specific patent(s) or published pending patent application(s) that may be essential to the practice of the proposed TIA Publication in question. Patent searches are not required to comply with the TIA Intellectual Property Rights Policy."

1.3 Chair's Report

Agenda review and approval (TR-42.7-2021-06-024b) – Motion to Approve by Bob Voss, 2nd by Val Maguire. Approved by voice vote without opposition.

024b 04-14-21 Agenda for meeting of June 16 and 17 Wayne Larsen

1.7 Meeting report review and approval (TR42.7-2021-06-025) - Motion to Approve by Sean Lenz, 2nd by Brad Woodman. Approved by voice vote without opposition.

025 02-11-21 Minutes from meetings of January 29 and February 4 Wayne Larsen

1.4 Distribution of documents and contributions

(Contributions left in this place in the agenda do not need to be reviewed during this meeting.)

027	02-18-21	SP-568.5-R1 (Single-Pair) ballot comment form	Wayne Larsen
028	03-09-21	Temperature rise of SPE bundles vs modeled temp rise	Todd Harpel
029	04-12-21	Minutes from Single-Pair Heating TG meeting of April 9	Todd Harpel
032	05-04-21	PN-5071 (Single-Pair Field Testing) draft 1.0d	Arvind Patel



Meeting Report

034 05-12-21

Minutes from Single-Pair Heating TG meeting of May 7 Todd Harpe

1.9 Review of incoming liaison letters, reports, and requests – No incoming liaison letters for review

(POE legislation report) – Reviewed Ron Tellas POE legislation report.

1.10 Review of action items

Item	Task group name or owner	Task group membership or task description	Completion Date
1	POE legislation ad hoc	Ron Tellas leader Val Maguire, Frank Straka, Fred Dawson, Antoine Pelletier, Dave Jeskey, Mark Dearing, Todd Harpel, Adnan Ahmed, George Zimmerman, Trent Hayes, Chris DiMinico, Diane Forbes	Expecting a report at the October meeting. Ron Tellas has made reports, will continue to report as needed Ongoing
2	Test methods TG Derrick Stikeleather leader	Solve the problem of the grounding of the remote end	Derrick is hoping to get additional samples, and have more to report in October. Round robin is planned, being delayed by virus considerations Ongoing
3	Todd	Task group to study 1-pair cable heating. Members Bob Voss, Chris, Darshana, Dave Hess, Paul, Brian C., Anthony, George	Held several meetings and several contributions. Close to validating an equation for shielded cable, will follow up with UTP. Will continue task group. Next meeting July 2
4	Cameron	Make a contribution on SPMD	Completed by #38
5	Wayne, Dave, Sterling	Send the updated 568.5 to the USTAG to ISO	Complete
6	Wayne, Dave, Arvind	Send the updated 5071 draft to the USTAG to IEC TC46	Wayne sent to Dave – waiting for confirmation from Dave
7	Wayne, Sterling	Circulate industry ballot for 568.5	Complete
8	Wayne, Arvind	Circulate industry ballot for 5071	Complete



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9	Wayne	Notify TIA to re-affirm TIA-TSB-5021	Complete
10	Wayne	Notify TIA to circulate ballot to re-affirm ANSI/TIA-1152A	Re-affirmation ballot has been circulated
11	Wayne, Sterling	Update '568.5 draft and circulate another industry ballot	
12	Wayne	Draft PAR for amendment for 184-A for single pair	
13	Wayne, Dave	Send 568.5 to USTAG after updates	

2 OLD BUSINESS

2.1 Field testing for 1-pair cabling to be published as ANSI/TIA-5071

No action since industry ballot is still open

2.2 Consider TSB for Guidance for supporting power delivery over single-pair TIA-TSB-5070 (To include thermal performance) – Reviewed ctrb 043, 040, 039, 042

Motion to move forward with an **Addendum to TSB 184-A** instead of pursuing TSB-5070. Wayne to bring a PAR to Oct meeting for this Addendum. Motioned by Ray Emplit, 2nd by George Zimmerman. **Approved** by voice vote without opposition.

The project for the TSB will be cancelled at the appropriate time.

- Expect to review preliminary outline
- Possible vote to circulate 1st committee ballot
- Possible vote to circulate 1st industry ballot

033	05-12-21	Bundled SPE thermal considerations	DiMinico/Voss
035	05-21-21	Single-Pair Heating TG gaps to address	Todd Harpel
043	06-15-21	Single-Pair Heating TG report	Todd Harpel
036	05-25-21	SPE PoE testing	Darshana
Bhatt			
039	06-12-21	Cable heating result for 18 AWG SPE	W. Hopkinson
040	06-12-21	Cable heating relationship for powered fiber cables	W. Hopkinson
042	06-15-21	PN-5070 (Single-Pair Power) draft 1.0	Anthony Tassone

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2.3 Consider re-affirmation, revision, or withdrawal of ANSI/TIA-1152A, Requirements for field test instruments and measurements for balanced twisted-pair cabling –

Motion to conditionally approve accepting results of ballot, and publish reaffirmation. Motioned by Ray Emplit, 2nd by Brad Woodman. Approved by voice vote without opposition.

- Re-affirmation ballot not expected to close by June meeting
- Possible vote to conditionally accept result of vote to re-affirm and to publish

2.4 ANSI/TIA-568.5 standard for 1-pair cabling – Reviewed ctrbs 037, and 031

All ballot comments were resolved and the resolutions were recorded in 031a.

Motion to circulate 5th industry ballot by Ray, 2nd by George. Approved by voice vote without opposition.

- Expect to review comments on 4th industry ballot
- Possible vote to circulate 5th industry ballot
- Possible vote to default ballot
- Possible vote to publish

037	06-10-21	TCL varying common mode impedance	Cameron Jones
026	02-18-21	PN-568.5 (Single-Pair) draft 1.7a	Sterling Vaden
030	05-04-21	SP-568.5-R1 (Single-Pair) ballot summary	Wayne Larsen
031	05-04-21	SP-568.5-R1 (Single-Pair) ballot comments	Wayne Larsen

2.5 ANSI/TIA-568.6, Single Pair Multi-Drop (SPMD) cabling and component specifications – Reviewed ctrbs 041 and 038

- Expect to review contributions
- Possible vote to circulate mock ballot
- Possible vote to circulate committee ballot
- Possible vote to circulate industry ballot

038	06-10-21	Multidrop modeling: cabling system convergence	Cameron Jones
041	06-14-21	Multidrop mixing segment considerations	Chris DiMinico



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3 NEW BUSINESS

3.1 Possible other new projects

3.2 Output documents and letters – Send 568.5 draft to USTAG after comments have been implemented.

3.2.1 Consider a liaison to IEEE on single-pair cabling and connectors.

3.2.2 Consider any draft documents to liaise to any other SDOs

3.2.3 Consider any other output documents

3.3 Review of potential new work items

3.4 Review of action items - Completed

3.5 Determination of future meeting dates

4 FUTURE MEETING DATES AND SCHEDULE

October 18-22, 2021, virtual

It was observed that these dates conflict with the NFPA panel 16 meeting.

5 ACKNOWLEDGEMENTS

- Early in the meeting, Sterling Vaden was presented with a plaque to honor his outstanding contributions to TIA over the years.

6 ADJOURNMENT

Motion to adjourn by George Zimmerman, 2nd by Chris Diminico. Meeting adjourned about 5:30 on Wednesday.

This meeting was conducted in accordance with the TIA Legal Guides and the engineering procedures.

AVAILABILITY OF MEETING DOCUMENTS TO NON-MEMBERS:

All TIA non-members can download contributions and other meeting documents before the meeting by accessing the following TR-42.7 Standalone Library:

<https://connect.tiaonline.org/communities/community-home/librarydocuments?LibraryKey=3EAA9087-C7B2-4503-9DFB-C3787088B28D>

AVAILABILITY OF MEETING DOCUMENTS:

TR-42.7 members/participants are instructed to download contributions and other meeting documents from TIA Connect (connect.tiaonline.org) before the meeting.

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- Click the "Communities" tab and then select "All My Communities"
- Scroll down the page and select "TR-42.7 Cooper Cabling Systems"
- Click on "Documents" and then select the "2021-02 Virtual" folder

NEW CONTRIBUTIONS:

Contributions shall use the approved templates and specific wording provided by TIA. Contributions affecting a document are to include a TIA cover sheet, proposed text to be included in the document, and the rationale/substantiation for the contribution. File templates are available on TIA Connect under the Standards Procedure Toolbox tab in the Form folder for download. All contributions shall be submitted to Valerie Maguire (the EDC) at valerie_maguire@siemon.com and copied to the chair and vice-chair. All electronic files shall be provided in either Adobe Acrobat (*.PDF); Microsoft Word (*.DOC); Microsoft PowerPoint (*.PPT); or in Microsoft Excel (*.XLS). Compressed files shall be accessible using PKUNZIP or WINZIP (*.ZIP).

All contributions shall be sent to the EDC for posting on appropriate location on TIA Connect no later than 12:00 am AOE on the Thursday preceding the week of the meeting in which the contribution is to be considered (example: if the meeting will be held on Thursday the 28th, the contributions shall be sent by midnight on Thursday the 21st).

LATE CONTRIBUTIONS:

Contributions not posted as described in the timing above shall be classified as "late contributions." They may be considered in the meeting to which they are addressed provided that an appropriate motion receives 50% or greater of a vote.

All late contributions shall be provided to the EDC and to the committee members on a memory stick or CD-ROM along with sufficient paper copies for those members without a PC.

All late contributions shall be posted to TIA Connect no later than one week following the meeting in which they are considered. Notification of the posting shall be made to the group's email reflector list by the EDC.

Questions and Comments concerning this agenda should be submitted to:

Chair: Wayne Larsen	Ph: (214)-587-3970	E: wayne@wdlresearch.com
Vice-chair: Brian Celella	Ph: (860)-945-8589	E: brian_celella@siemon.com

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Document	Title	Date of Revision	Current Status
TSB-5070	Guidelines for Supporting Power Delivery over Balanced Single Twisted-Pair Cabling		New project, no documents yet
ANSI/TIA-568.6	Single Pair Multi-Drop (SPMD) cabling and component specifications		New project, no documents yet
ANSI/TIA-5071	Requirements for Field Test Instruments and Measurements for Balanced Single Twisted-Pair Cabling		Being balloted
ANSI/TIA-568.2-D-1	Balun requirements for Category 8 testing	April 2019	Published
ANSI/TIA-568.2-D-2	Balanced Twisted-Pair Telecommunications Cabling and Components Standard Addendum 2: Power Delivery Over Balanced Twisted-Pair Cabling	July 2020	Published
ANSI/TIA-568.5	Single pair balanced twisted-pair telecommunications cabling and components		Being balloted
TSB-184-A-1	Guidelines for the use of 28 AWG cords for power delivery	February 2019	Published
ANSI/TIA-1183-A	Measurement methods and test fixtures for balun-less measurements of balanced components and systems	March 2017	Published
ANSI/TIA-568.4-D	Broadband Coaxial Cabling and Components Standard	June 2017	Published
TSB-184-A	Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling	2017	Published
ANSI/TIA-568.2-D	Balanced Twisted-Pair Telecommunications Cabling and Components Standard	2018	Published
ANSI/TIA-1152-A	Requirements for Field Test Instruments and Measurements for Balanced Twisted-Pair Cabling	2016	Published (Re-affirmation in process)
TSB-5021	Guidelines for the Use of Installed Category 5e and Category 6 Cabling to Support 2.5GBASE-T and 5GBASE-T	2021 (Re-affirmed)	Published
TSB-5019	High Performance Structured Cabling Use Cases for Data Centers and Other Premises	2020 (Re-affirmed)	Published



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TSB-155-A	Guidelines for the Assessment and Mitigation of Installed Category 6 Cabling to Support 10GBASE-T	2014 (Re-affirmed)	Published
TSB-5008	Mechanically-Generated Cable Impulse Noise Detection and Characterization	2019 (Re-affirmed)	Published
TSB-1197	Mode Conversion Parameters for Balanced Twisted Pair Cabling	2019 (Re-affirmed)	Published
TSB-190	Guidelines on Shared Pathways and Shared Sheaths	2018 (Re-affirmed)	Published