

TR-42.12 Optical Fibers and Cables

Date: Tuesday 2023.06.06 Time: 1:30PM – 6:00PM (CDT)

Location: In-person (Omaha, NE) and Virtual GoToWebinar
Chair: Dave Kozischek (Committee Support: Cheryl Thibideau)

Vice Chair: Roman Shubochkin

Meeting Schedule: Tuesday June 6, 1:30PM – 6:00PM (CDT), 2:30PM – 7:00PM (EDT)

Registration: (required as meeting is in person)

GoToWebinar Registration:

Please note that you must register for the event by clicking on the registration link. If you do not register, you will not be able to attend the meeting.

Our subcommittee meeting is scheduled on Tuesday, June 6, 2023, from 1:30 pm to 6:00 pm EST.

Here is the GTW link to register:

https://register.gotowebinar.com/register/8308763510764741982

IEC SC86A Fibres and Cables US TAG Meeting will be held in conjunction with the TIA TR42 Meetings and will be on Thursday June 8 from 10:00 to 12:PM (CDT) at:

Embassy Suites by Hilton Omaha Downtown / Old Market 555 South 10th Street Omaha, NE 68102 Tel. 402-246-9000

Online Instructions:

Url: https://attendee.gotowebinar.com/register/6862115171378999385

1. Administrative/General Business

1.1. Call to Order

XXXAM



TIA Important Notice of Participation

Participation in, or attendance at, any activity of a TIA Formulating Group or any sub-element thereof, constitutes acceptance of an agreement to be bound by all provisions of TIA Standards Development Procedures and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA's web site, in whole or in part, on a non-exclusive basis by TIA or TIA's licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by the head of the TIA Standards Department on a case-by-case basis. TIA is actively seeking participation in TR-42 standards projects from the user and general interest categories

1.2. Attendance (Call Quorum, Introductions, Roster)

Meeting sign-in link: attendance will be collected via GoToWebinar Quorum achieved with xx companies attending forming quorum versus xx needed.

1.3. Current Meeting Agenda Review and Approval

The current meeting agenda has been posted. Review agenda and move to approve.

Motion # xx: Move to approve current meeting agenda.

M: S: Result:

Meeting agenda document "TR42.12-2023-06-001.agenda.docx" was xxx.

1.4. Previous Meeting Report Review and Approval

The TIA report of the January 2023 meeting has been posted.

Motion #: Move to approve revised June meeting report.

M: xxxx S: xxx Result:

Meeting agenda document "TR4212-2023-01-010.agenda.docx" was xxx

1.5. TIA Intellectual Property Rights (Early Disclosure Policy)

TIA's Intellectual Property Rights Policy can be found in Statements of Policy (ANNEX C) and other clauses and annexes of TIA Standards Development Procedures. 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.

1.6. Distribution of documents and contributions

The following documents distributed via TIAConnect

Table 1. Contributions

Document	Contributor	Affiliation	Title	
TR42.12-2023-06-001	Dave Kozischek	Corning	g Meeting Agenda	
TR42.12-2023-06-002	David Kozischek	Corning	TR42.12 Master Doc List (v.3)	
TR42.12-2023-06-003	David Kozischek	Corning	IEC Liaison Report	
TR42.12-2023-06-004	David Kozischek	Corning	ICEA Liaison Report	
TR42.12-2023-06-005	David Kozischek	Corning	ITU-T Q5/Q7 Liaison Report	
TR42.12-2023-06-006	Mike Connaughton	Leviton	Tracer colors for fiber identification	
TR42.12-2023-06-007	Thomas Schmalzigaug	Huber & Suhner	Working draft 1 for TIA-455-37-B (revision of TIA-455-37-A)"	
TR4212-2023-01-010	Roman Shubochkin	OFS	January approved Meeting Report	

1.7. Chair's Report and General Items

Use the TIA cover sheets for contributions. Cover sheets are not needed for balloted drafts, ballot results, or comment compilations. Request a document number from chair and place on cover sheet.

TR-42 has transitioned to TIA Connect for meeting administration and messaging and we will no longer be able to upload documents to the TIA FTP site. You will be able to retrieve old documents, but now documents will be uploaded to TIA Connect https://connect.tiaonline.org/home.

Please also note that the "reflector" email distribution has changed: Old: tr4212@tiacomm.org New: TIA-TR4212@ConnectedCommunity.org

Voting registration policy: three non-returned ballots will place member in the "register by document" status instead of "automatic registration" status. This is being implemented to



provide a mechanism to demote the people who are auto registered but do not participate in meetings or ballots that sometimes cause insufficient return rates to allow ballot closure.

1.8. List of Standards and TSBs from Subcommittee

Please reference the tracking spreadsheet located in TIAConnect TR42.12 workspace.

1.9. Liaison letters received

None

1.10. Reports

TR42.12-2023-06-003	David Kozischek	Corning	IEC Report
TR42.12-2023-06-004	David Kozischek	Corning	ICEA Report
TR42.12-2023-06-005	David Kozischek	Corning	ITU-T Q5/Q7 Report

2. Old business

January Update:

Review TR42.12-2023-01-002 (Master document list or FOTPs and Specs)

- Sort them by date so we know which are out of date.
- tag them to determine which ones can be adopted/reaffirmed without change.
- tag any that are no longer needed, they can be rescinded and are equally easy.
- Then any that need to be adapted/updated/revised set up a priority list, and ask for editors to take ownership
- Regardless all actions; reaffirm/rescind/revise all need to go through the ballot process.

Action #1: Chair and Vice-chair will take action to review all documents on the Master sheet and come back in June 2023 with recommendations on the next batch of documents to work on. Comments from other 42.12 members are encouraged; please send any notes to Dave and Roman.

June Update:

2.1. TIA-455-3 (FOTP-3) Temperature Ramps and Precision (Editor: Pete Weimann, OFS)

January Update: Unfortunately, looking into this further, we missed the deadline to submit this for publication per ANSI requirements. The public review for the ballot ended on July 12, 2021 and the BSR9 would have needed to be submitted by July 12, 2022 in order to be compliant with ANSI.



So, we should vote 1) put the document for the re-ballot after the meeting this week and 2) if it passes w/o technical objections, then it can go to publication automatically (meaning we will still need to re-submit the paperwork)?

June Update:

2.2. TIA-455-111-B (11/2003) (FOTP-111), fiber curl, adoption of IEC 60793-1-34 (editor Phil Irwin, Panduit)

January Update: Published

June Update: Propose remove from Agenda after June meeting

2.3. TIA-492 Series Restructuring

2.3.1. Generic (adopt with modifications of the IEC 60793-2:2019 as ANSI/TIA-4920000-C) (editor Derek Huffman, Corning)

January Update: January Update: the document will go for a committee ballot after this meeting; will close on April 3.

June Update:

2.3.2. Multimode (adopt with modifications of the IEC 60793-2-10:2019 as ANSI/TIA 492AAAF) (editor Sunny Xu, Commscope)

January Update:

Motion #5: Move the document to ballot.

Moved: Sunny Xu Second: Pete Pondillo Result: Passed without objection

June Update:

2.3.3. Singlemode (adopt with modifications of the IEC 60793-2-50:2018 as ANSI/TIA-492CAAC) (editor Bulent Kose, Panduit)

January Update: Verified: Includes all amendments and changes through Errata, January 21, 2022.

June Update: Propose remove from Agenda after June meeting



- 2.4. Open projects to update adoptions:
- 2.4.1. TIA-455-133-A (05/2003) is an adoption of the IEC 60793-1-22:2001 Optical fibres Part 1-22: Measurement methods and test procedures Length measurement (editor Bulent Kose)

January Update: CD just issued and due in 2024. No action required until 60793-1-22 is published

June Update:

2.4.2. TIA-455-203-A (03/2009) FOTP-203 Light Source Encircled Flux Measurement Method): plan to adopt the IEC 61280-1-4 Fibre Optic Communication Subsystem Test Procedures - Part 1-4: General Communication Subsystems - Light Source Encircled Flux Measurement Method (Bulent Kose)

January Update: IEC in CDV Stage, No action required until 61280-1-4 is published in 2023

June Update:

2.4.3 TIA-455-204-A (10/2013) is an adoption of the IEC 60793-1-41:2010 Optical fibres - Part 1-41: Measurement methods and test procedures – Bandwidth

January Update: No action required until 60793-1-41 is published in 2024

January Update:

2.5 ANSI/TIA-598-D-2014 ("Optical Fiber Cable Color Coding"): open for revision (editor Pete Pondillo)

January Update: Need to refine set-up, no update but correspondence continues. **Action #2:** Pete Pondillo to schedule a meeting before June for Ink Draw-down sample discussion. Meeting scheduled for March 15.



June Update:

TR42.12-2023-06-006	Mike Connaughton	Leviton	Tracer colors for fiber identification	
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3. Recession/Obsolete Documents Discussions

3.1.1. FOTP 30 - Frequency Domain Measurement of Multimode Optical Fiber Information Transmission Capacity

June Update: Withdrawn

3.1.2. FOTP 54 - Mode Scrambler Requirements for Overfilled Launching Conditions to Multimode Fibers

June Update: Still active FOTP 54B

3.1.3. FOTP 124 - Polarization-Mode Dispersion Measurement for Single-Mode Optical Fibers by Interferometry (merge with FOTP 122?)

June Update: Not shown Is this now FOTP 196?

4. New Business

- **4.1.** FOTPS past 10 years old Make motions on FOTPS that are over 10 years old. For these documents we have three choices. Restart the ANSI process to get them reinstated as ANS. Start a process to get them approved as TIA Only standards. Keep withdrawn. See TR42.12-2023-06-002_v3.0_Master
 - 4.1.1. TIA-455-179 FOTP-179 Inspection of Cleaved Fiber End Faces by Interferometry. Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
 - 4.1.2. TIA-455-28 FOTP-28 Measuring Dynamic Strength and Fatigue Parameters of Optical Fibers by Tension Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
 - 4.1.3. TIA-455-124 FOTP124 Polarization-Mode Dispersion Measurement for Single-Mode Optical Fibers by Interferometry Motion # Restart the ANSI process or TIA Only or Keep Withdrawn



- 4.1.4. TIA-455-220 FOTP-220 Differential Mode Delay Measurement of Multimode Fiber in the Time Domain Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- **4.1.5.** TIA-455-58 FOTP-58 Core Diameter Measurement of Graded-Index Optical Fibers Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- **4.1.6.** TIA/EIA-455-88 FOTP-88 Fiber Optic Cable Bend Test Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.7. TIA/EIA-455-132 FOTP-132 Measurement of the Effective Area of Single-Mode Optical Fiber Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.8. TIA/EIA-455-113 FOTP-113 Polarization-Mode Dispersion Measurement for Single-Mode Optical Fibers by the Fixed Analyzer Method Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.9. TIA/EIA-455-181 LIGHTNING DAMAGE SUSCEPTIBILITY TEST FOR FIBER OPTIC CABLES WITH METALLIC COMPONENTS (SEE ALSO NECA/FOA 301) Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.10. TIA/EIA-455-69 FOTP-69 Test Procedure for Evaluating the Effect of Minimum and Maximum Exposure Temperatures on the Optical Performance of Optical Fibers Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.11. TIA/EIA-455-81 FOTP-81 Compound Flow (Drip) Test for Filled Fiber Optic Cable Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- **4.1.12.** TIA/EIA-455-98 FOTP-98 Fiber Optic Cable External Freezing Test Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.13. TIA/EIA-455-169 FOTP-169 Chromatic Dispersion Measurement of Single-Mode Optical Fibers by the Phase-Shift Method Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.14. TIA-455-84 FOTP-84 Jacket Self-Adhesion (Blocking) Test for Optical Fiber Cable Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.15. TIA-455-89 FOTP-89 Optical Fiber Cable Jacket Elongation and Tensile Strength Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- **4.1.16.** TIA-455-91 FOTP-91 Fiber Optic Cable Twist-Bend Test Motion # Restart the ANSI process or TIA Only or Keep Withdrawn



- 4.1.17. TIA-455-38 FOTP-38 MEASUREMENT OF FIBER STRAIN IN CABLES UNDER TENSILE LOAD Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.18. TIA-455-106 FOTP 106 PROCEDURE FOR DETERMINING
 THRESHOLD CURRENT OF SEMICONDUCTOR LASERS (ALSO SEE NECA
 NEIS 301) Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- 4.1.19. TIA-455-30 FOTP-30 Frequency Domain Measurement of Multimode Optical Fiber Information Transmission Capacity Motion # Restart the ANSI process or TIA Only or Keep Withdrawn
- **4.2.** FOTPS that will be 10 years old in 2024 Make motions on FOTPS that will be 10 years old in 2024. For these documents we have three choices. Withdraw as an ANS and follow the decision-making process for withdrawn standards. Seek an extension to update. Seek to reaffirm. See TR42.12-2023-06-002 v3.0 Master
 - **4.2.1.** TIA-455-204 FOTP-204 Measurement of Bandwidth on Multimode Fiber Motion # Withdraw or Update or Reaffirm
 - **4.2.2.** TIA-455-12 FOTP-12 Fluid Immersion Test for Fiber Optic Components Motion # Withdraw or Update or Reaffirm
 - **4.2.3.** TIA-455-33 FOTP-33 Optical Fiber Cable Tensile Loading and Bending Test Motion # Withdraw or Update or Reaffirm
 - 4.2.4. TIA-455-133 FOTP- 133 IEC-60793-1-22 Optical Fibres- Part 1-22: Measurement Methods and Test Procedures- Length Measurement Motion # Withdraw or Update or Reaffirm
 - 4.2.5. TIA-455-195 FOTP- 195 IEC-60793-1-21 Optical Fibres- Part 1-21: Measurement Methods and Test Procedures- Coating Geometry Motion # Withdraw or Update or Reaffirm
 - **4.2.6.** TIA-455-15 FOTP- 15 Altitude/Immersion of Fiber Optic Components Motion # Withdraw or Update or Reaffirm
 - **4.2.7.** TIA-455-54 FOTP- 54-B Mode Scrambler Requirements for Overfilled Launching Conditions to Multimode Fibers Motion # Withdraw or Update or Reaffirm
 - **4.2.8.** TIA-455-37 FOTP-37 Low or High Temperature Bend Test for Fiber Optic Cable Motion # Withdraw or Update or Reaffirm
 - **4.2.9.** TIA-455-57 FOTP-57 Preparation and Examination of Optical Fiber Endface for Testing Purposes Motion # Withdraw or Update or Reaffirm
 - **4.2.10.** TIA-455-123 FOTP-123 Measurement of Optical Fiber Ribbon Dimensions Motion # Withdraw or Update or Reaffirm
 - **4.2.11.** TIA-455-131 FOTP-131 Measurement of Optical Fiber Ribbon Residual Twist Motion # Withdraw or Update or Reaffirm



- **4.2.12.** TIA-455-183 FOTP-183 Hydrogen Effects on Optical Fiber Cable Motion # Withdraw or Update or Reaffirm
- **4.2.13.** TIA-455-31 FOTP-31 Proof Testing Optical Fibers by Tension Motion # Withdraw or Update or Reaffirm
- **4.2.14.** TIA-455-39 FOTP-39 Optical Fiber Cable Water Wicking Test **Motion** # Withdraw or Update or Reaffirm
- 4.2.15. TIA-455-85 FOTP-85 Fiber Optic Cable Twist Test Motion # Withdraw or Update or Reaffirm
- **4.2.16.** TIA-455-87 FOTP-87 Fiber Optic Cable Knot Test Motion # Withdraw or Update or Reaffirm
- **4.2.17.** TIA-455-141 FOTP-141 Twist Test for Optical Fiber Ribbons Motion # Withdraw or Update or Reaffirm
- **4.2.18.** TIA-455-162 FOTP-162 Optical Fiber Cable Temperature Humidity Motion # Withdraw or Update or Reaffirm Cycling
- **4.2.19.** TIA-455-192 FOTP-192 H-Parameter Test Method for Polarization-Maintaining Optical Fiber Motion # Withdraw or Update or Reaffirm
- **4.2.20.** TIA-455-193 Polarization Crosstalk Method for Polarization- Maintaining Optical Fiber and Components Motion # Withdraw or Update or Reaffirm
- **4.2.21.** TIA-455-72 "FOTP- 72 Procedure for Assessing Temperature and Humidity Cycling Exposure Effects on Mechanical Characteristics of Optical Fibers Motion # Withdraw or Update or Reaffirm
- **4.2.22.** TIA-455-73 FOTP- 73 Procedure for Assessing Temperature and Humidity Cycling Exposure Effects on Mechanical Characteristics of Optical Fibers Motion # Withdraw or Update or Reaffirm
- **4.2.23.** TIA-455-41 FOTP- 41 Compressive Loading Resistance of Optical Fiber Cables Motion # Withdraw or Update or Reaffirm
- **4.2.24.** TIA-455-100 Gas Leakage Test for Gas-Blocked Fiber Optic Cables Motion # Withdraw or Update or Reaffirm
- **4.3.** FOTPS that will be 5-9 years old– Make motions on FOTPS that will be 5-9 years old in 2024. For these documents we have three choices. Withdraw as an ANS and follow the decision-making process for withdrawn standards. Seek an extension to update. Seek to reaffirm. See TR42.12-2023-06-002 v3.0 Master
 - **4.3.1.** TIA-455-234 FOTP-234 IEC-60793-1-52 Optical Fibres Part 1-52: Measurement Methods and Test Procedures Change of Temperature Motion # Withdraw or Update or Reaffirm
 - **4.3.2.** TIA-455-56 Test Method For Evaluating Fungus Resistance of Optical Fiber and Cable Motion # Withdraw or Update or Reaffirm



- **4.3.3.** TIA-455-25 FOTP-25 Impact Testing of Optical Fiber Cables **Motion** # Withdraw or Update or Reaffirm
- **4.3.4.** TIA-455-104 FOTP-104 Fiber Optic Cable Cyclic Flexing Test Motion # Withdraw or Update or Reaffirm
- 4.3.5. TIA-455 General requirements for standard test procedures for optical fibers, cables, transducers, sensors, connecting and terminating devices, and other fiber optic components Motion # Withdraw or Update or Reaffirm
- **4.3.6.** TIA-455-86 FOTP-86 Optical Fiber Cable Jacket Shrinkage Motion # Withdraw or Update or Reaffirm
- 4.3.7. TIA-455-3 FOTP-3 Procedure to Measure Temperature Cycling Effects on Optical Fiber Units, Optical Cable, and Other Passive Fiber Components Motion # Withdraw or Update or Reaffirm
- **4.3.8.** TIA-455-203 FOTP-203 Light Source Encircled Flux Measurement Method Motion # Withdraw or Update or Reaffirm
- **4.3.9.** TIA-455-16 FOTP-16 Salt Spray (Corrosion) Test for Fiber Optic Components Motion # Withdraw or Update or Reaffirm
- **4.3.10.** TIA-455-48 FOTP- 48 Measurement of Optical Fiber Cladding Diameter Using Laser-Based Instructions Motion # Withdraw or Update or Reaffirm
- **4.3.11.** TIA-455-71 FOTP-71 Procedure to Measure Temperature- Shock Effects on Fiber Optic Components Motion # Withdraw or Update or Reaffirm
- **4.4.** Collaboration with ICEA on cable document maintenance June Update:
- **4.5.** Closing Items

Request xxx hours for xxx meeting

4.6. Next meetings

Sept 25-29 (TBD)

4.7. Meeting Close

Motion #: Move to close meeting

M: xx S: xx. Result: Meeting closes at xxx



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.X Standalone Library: connect.tiaonline.org/communities/community-home/...

Please do not hesitate to reach out if you have any questions.

Thank you!

AVAILABILITY OF MEETING DOCUMENTS:

TR-42.12 members/participants are instructed to download contributions and other meeting documents from TIA Connect (connect.tiaonline.org) before the meeting.

To access the meeting's contributions, please follow the directions below:

- Go to connect.tiaonline.org
- Enter your *Username* (your email address in the TIA database)
- Enter your Password
- o Click "LOGIN"
- Click the "Communities" tab and then select "All My Communities"
- Scroll down the page and select "TR-42.12 Optical Fibers and Cables"
- o Click on "Documents" and then select the "2023-01 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 the electronic document coordinator (EDC). 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).

Early submittal and posting of contributions for consideration in meetings is highly encouraged. Contributions shall be submitted to the EDC as soon as possible and then posted to the appropriate TIA Connect folders by the EDC as soon after receipt as possible, preferably within



one business day. All contributions shall be posted to the appropriate location on TIA Connect no later than 12:00 noon EST on the Monday preceding the week of the meeting in which the contribution is to be considered (example: if the meeting will be held on Thursday the 20th, the contributions shall be posted by noon on Monday the 10th).

LATE CONTRIBUTIONS:

Contributions provided to the EDC within 24-hours of the meeting shall be classified as "late contributions." They may be considered in the meeting to which they are addressed at the discretion of the chair. All late contributions shall be provided to the EDC and to the committee members on a memory stick or other electronic media. All late contributions shall be posted to TIA Connect within one week of meeting adjournment.

Questions and comments on this agenda should be submitted to:

Dave Kozischek, Chair	kozischedr@corning.com	
Committee Support: Cheryl Thibideau	CThibideau@tiaonline.org	
Roman Shubochkin, Vice-Chair	RShubochkin@ofsoptics.com	