

### **Telecommunications Industry Association**

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

# **Approved by General Counsel**

TR-42.12 Subcommittee on

**Optical Fibers and Cables** 

Meeting Date: 08 June 2022

Location: Teleconference

Approved: 28 June 2022



### TR-42.12 Optical Fibers and Cables Engineering Committee

Date:	06/08/2022
Time:	8:00 a.m. – 12 p.m. (CST)
Location:	Virtual GoToWebinar
Chair:	Dave Kozischek
Vice Chair:	Roman Shubochkin

Meeting Schedule: Wednesday, June 8, 2022, from 8:00 a.m. to 12:00 p.m. (CST)

Registration: (not required as meeting is not in person)

GoToWebinar Registration: https://attendee.gotowebinar.com/register/3249862121751708939

### 1. Administrative/General Business

### 1.1. Call to Order

8:02 am CST, 9:02 am EST meeting call to order

#### **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 21 companies attending forming quorum versus 14 needed.

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Last Name	First Name	Organization	
ALLEN	WILLIAM	OFS	
Ahmed	Adnan	R&M	
Richard	Alex	Legrand	
Broughton	Adam	Sumitomo Electric USA	
Burton	Brandi	U.S NAVY (NAVSEA)	
Carter	Joshua	U.S NAVY (NAVSEA)	
Locker	Chris	Google	
Ford	Christin	Superior Essex	
Montstream	Cindy	Legrand	
Connaughton	Mike	Leviton	
Cruz	Ana Carolina	Belden Canada ULC	
Valentukonis	Dave	Siemon	
Huffman	Derek	Corning	
Не	Gang	EXFO	
Rice	Henry	Hitachi Cable America	
Hodson	Tom	Lynn Electronics (formerly Total Cable Solutions)	
Jahani	Hamid		
Knehr	Helmut	Ericsson - NIS	
Kolczynski	Emmanuel	SENKO	
Lee	Sylvanus	Leviton Network Solutions	
Lee	Ben	Senko Advanced Components	
Lizarraga	Andrea	Belden	
Manley	Paul	AFL Hyperscale	
Reece	Mark	Google	
Morris	Dan	KITCO Fiber Optics	
Ninomiya	Tiger	SENKO Advanced Components, Inc.	
Otieno	Florence Rodah	Telecommunications Industry Association	
Kose	Bulent	Panduit	
Tourreau	Patrick	Photon Kinetics	
Irwin	Phil	Panduit	
Pondillo	Peter	Corning	
Provost	Lionel	Prysmian	
Shubochkin	Roman	OFS	
Rosenast	Erich	Tempo Communications	
Royer	Tyler	Senko Advanced Components	

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Sandels	Greg	OFS
Buchter	Shelly	US Conec
Smith	Dan	Nest Technical Services, Inc.
Steve Eisele	Data Center Systems	DCS
Tanis	David	
Schmalzigaug	Thomas	HUBER SUHNER
Xu	Sunny	CommScope
Young	James	Commscope
Dallmann	Rick	cablexpress
Goldstein	Seymour	fluke networks
Kozischek	Dave	Corning
Goas	Javier	Google
Jew	Jonathan	J&M Consultants, Inc
Keller	David	KellerREC
Oliver	Nelson	Belden
Payton	Scott	Global Data Center Engineering KK
Bhaumik	Sudipta	Sterlite Technologies Ltd (STL)
Tellas	Ronald	Belden
Piskorz	Piotr	HuberSuhner

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27	Companies listed in quorum				Total members at meeting	32	30	26
	Companies needed to form quorum							
21	Companies attending forming quorum							
	Quorum Achieved!!!		Attained	Voting	Number of			
Member Status		Send	voting	member at	the last 3			
atr		attendance	status	beginning	mtgs	Virtual	Virtual	Virtual
ŝ	Company	letter	this mtg	of this mtg	attended	8-Jun	26-Jan	6-Oct
ME	3M							
	AEM							
	AFL					1		
	AFL Hyperscale			Voting	3	1	1	1
	Belden Networks Division			Voting	3	1	1	1
	BASF							
	BR+A Consulting Engineers			Voting	2		1	1
	Cable Express			Voting	3	1	1	1
	CommScope			Voting	3	1	1	1
	Convergent Connectivity Technologies						-	-
	Corning Incorporated		Matt	Voting	3	1	1	1
	DCS		Voting		1	1	1	-
	Ericsson			Matter	2	1	1	1
	Exfo			Voting	3	1	1	1
	Experior Laboratories			Mathema				
-	Fluke Networks			Voting	3	1	1	1
	Furukawa Global Datacenter Engineering			Voting	2		1	1
-	Global Datacenter Engineering			voting	2	1	1	1
	Hitachi					1		
	Huber + Suhner			Voting	3	1	1	1
	Intertek			voting	3		- 1	•
	JGR Optics Inc			Voting	1	1	1	
	JP Morgan Chase			Voting	•			
	Keller REC				1		1	
	KITCO Fiber Optics			Voting	3	1	1	1
	Legrand			Voting	3	1	1	1
	Leviton			Voting	3	1	1	1
	NAVAIR				-	-	-	-
	NAVSEA					1		
ME	Nest					1		
	NIS							
ME	OFS			Voting	3	1	1	1
ME	OptoTest Corp			Voting	3		1	1
	Panduit Corp.			Voting	3	1	1	1
	Photon Kinetics, Inc.			Voting	3	1	1	1
	Prysmian Group, The			Voting	3	1	1	1
	R&M			Voting	3	1	1	1
	RIT Tech							
	Rosenberger							
	Senko			Voting	3	1	1	1
-	Siemon Company, The			Voting	3	1	1	1
	Sumitomo Electric			Voting	3	1	1	1
	Superior Essex			Voting	3	1	1	1
-	Tempo			Voting	3	1	1	1
	Total Cable Solutions			Voting	1	1	1	
	US Navy				-	1		
ME	USConec LTD			Voting	3	1	1	1

### 1.3. TR42.12 Leadership Elections

None.

### 1.4. Current Meeting Agenda Review and Approval

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

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Motion 1: Move to approve the current meeting agenda.

M: Greg Sandels S: Roman Shubochkin Result: Approved without objection

Meeting agenda document "TR42.12-2022-06-001.agenda.docx" was approved without objection.

### 1.5. Previous Meeting Report Review and Approval

The TIA approved report of the January 2022 meeting has been posted. Review previous meeting report and move to approve.

Motion 2: Move to approve previous meeting report.

M: Greg Sandels S: Sunny Xu Result: Approved without objection Document number: TR4212-2022-01-005 v2

### 1.6. 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.

### 1.7. Distribution of documents and contributions

The following documents distributed via TIAConnect

Document	Contributor	Affiliation	Title
TR42.12-2022-01-001.agenda_v3	Roman Shubochkin	OFS	Meeting Agenda
TR42.12-2022-01-002	David Kozischek	Corning	ITU Report
TR42.12-2022-01-003	David Kozischek	Corning	ICEA Report

#### Table 1. Contributions

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Document	Contributor	Affiliation	Title
TR42.12-2022-01-004 iec60793-2 ANSI PIN 492000-C FINAL	Pete Pondillo	Corning	PAR (PRF) to adopt with modifications the IEC 60793-2:2019 "Optical Fibres – Part 2: Product specifications – General"
TR42-2022-01-002 IEEE 802.3 reply re TIA-455-54-1	IEEE 802.3 WG	IEEE	Liaison reply to TR-42 on the use of test method TIA-455-54 (FOTP 54)
TR42-2022-01-003 ICEA reply re TIA-455-124	ICEA	ICEA	Liaison reply to TR-42 on the use of test method TIA-455-124 (FOTP 124)
TR42.12-2021-10-011.report_v2	Roman Shubochkin	OFS	October 2021 Approved Meeting Report

### 1.8. 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 <u>https://connect.tiaonline.org/home</u>.

Please also note that the "reflector" email distribution has changed: Old: <u>tr4212@tiacomm.org</u> 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.

### 1.9. List of Standards and TSBs from Subcommittee

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

## 1.10. Liaison letters received

None

### 1.11. Reports

Liaison letters, reports, or relevant activity from other standards committees (ITU, ICEA, etc.). David Kozischek presented ITU and ICEA liaison reports

### 2. Old Business

### 2.1. ANSI/TIA-455-3 (FOTP-3) Temperature Ramps and Precision

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January Update: Document was approved for publication in October; need to submit a Publication Authorization Form.

# June Update: Need to locate the latest files. Files have been recovered. Roman Shubochkin will be submitting PAF after the meeting.

### 2.2. TIA-455-111-A (11/2003) (FOTP-111), Fiber Curl, adoption of IEC 60793-1-34.

January Update: PAR to adopt a recently published IEC document (editor Phil Irwin) was submitted and has completed the ANSI review, the IEC document has been obtained and will be reviewed by TIA; plan to go to ballot after the review.

Motion #: Propose to go to ANSI ballot on adoption

M: RS S: PI Result: no objection

### June Update: Ballot No.: PN-455-111-B closes June 13th. Short on votes.

Motion 3: Motion to publish if there are no technical "no" votes or technical comments and allow the editor to incorporate editorial comments

### M: Phil Irwin S: Greg Sandels Objections: None

Result: motion passes without objection

### 2.3. TIA-492 Series Restructuring

### 2.3.1. Generic (adopt with modifications of the IEC 60793-2:2019 as ANSI/TIA-4920000-C)

January Update: Voted to rescind the current document and to start a new project to adapt the latest version of the IEC 60793-2:2019 (editor Pete Pondillo); moved to open CBA; getting ready to go to ballot after the meeting. Update on the project.

- Motion: accept a late PAR contribution (add document #)
- Moved: RS Second: GS, No objections
- Motion: accept the PAR to adopt with modifications the IEC 60793-2:2019 as ANSI/TIA-4920000-C
- Moved: Sunny, Second Pete P. No objections
- Motion: move document to ballot (pending TR42 plenary PAR's approval)
- Moved: Pete P Second: RS, No objections

# June Update: No update but Pete Pondillo and Derek Huffman agreed for Derek to become a new editor.

### 2.3.2. Multimode (adopt with modifications of the IEC 60793-2-10:2019 as ANSI/TIA-492AAAF)

January Update: Errata was sent to IHS for publication last week of January.

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June Update: Errata published on January 21; There is a new edition of the IEC document (IEC 60793-2-10 Edition 7.1 2022), need to submit the PAR to open the TIA document to adopt the new IEC edition with modifications. Project number... use main doc number with a dash-1.

Document number: TR42.12-2022-06-008 Motion 4: Motion to approve PAR to adopt with modification of IEC 60793-2-10 Edition 7.1 2022

### M: Sunny Xu S: Roman Shubochkin

Result: Motion passes without objection

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

January Update: Errata was sent to IHS for publication last week of January.

June Update: Errata published on January 21

### 2.4. Open projects to update IEC 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

January Update: Update on ballot status. Stability date 2022.

June Update: Currently being modified in IEC. Wait for publication before next steps. Bulent Kose selected to be the editor.

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

January Update: Update on ballot status. Stability date 2023.

June Update: Bulent Kose selected to be the editor

### 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 on ballot status. Stability date 2022.

June Update: IEC 60793-1-41 out for revision now in IEC. Patrick Tourreau selected to be the editor

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

Jan Update: Pete Pondillo gave an update on the project. Discussed the need to create a methodology for the evaluation of colors, methodology of setting up  $\Delta E$  limits and boundary conditions on L.A.B color variations as well as proposals from individual TG companies on where to set these limits; joint June contribution(s) could be helpful. Sunny Xu will set interim calls prior to the TIA meeting in June and update the communication list of the working TG participants. Sunny will also handle additional RR data generated by other participants as well as all other related RR information.

June Update: Sunny Xu presented contribution on Munsell color chips. Team to continue correspondence. Continue to collect data to complete Phase One RR (color chip samples).

Schedule 1 interim meeting in August.

Dan Smith to join correspondence group

Sunny to create next delta E and will add it to the correspondence folder

Pete to schedule next interim meeting. Target is August

For next meeting: Goal...Each company to generate own set of test samples using the same pre-defined ink draw down methodology. Study and define proper calibration artifacts and procedures.

### 3. Rescission of Obsolete Documents Discussion

# **3.1.1. FOTP 30** – Frequency Domain Measurement of Multimode Optical Fiber Information Transmission Capacity

January Update: Moved to obsolete the document in October 2021, currently shows up as "Inactive" and "superseded by TIA-455-204"; will discuss sending a request to add "obsolete" to the profile.

#### June Update: Shows at inactive

# **3.1.2.** FOTP 54 – Mode Scrambler Requirements for Overfilled Launching Conditions to Multimode Fibers

January Update: Review the IEEE liaison letter.

Motion: To obsolete FOTP 54

Moved RS Second GS No objections

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June Update: Still show as active...Cheryl to confirm process

# **3.1.3. FOTP 124** – Polarization-Mode Dispersion Measurement for Single-Mode Optical Fibers by Interferometry

January Update: Review the 12/10/2021 ICEA liaison letter.

Motion: To obsolete FOTP 124

Moved PT Second GS No objections

### June Update: Still show as active...Cheryl to confirm process

### 4. Collaboration with ICEA

Jan Update: Continued discussion of the ICEA proposal on collaboration on TIA cable document maintenance. Greg Sandels gave an update on the TR42 leadership discussion on the topic, no formal objection from TIA so far, but we need to see the ICEA response first. ICEA acknowledged the receipt of the second TIA liaison letter back in December, but there was no follow-up response yet.

June Update: No update from ICEA. Proposal from Pete Pondillo is for TIA experts to bring contributions for potential changes to any FOTP. 42 leadership at closing plenary will respond with draft response letter. Dave Kozischek to supplied the draft response letter. Henry Franc sent letter to ICEA

### 5. New Business

Standards Spreadsheet review – David Kozischek reviewed spreadsheet. Dave will keep copy and not transfer to GoggleDocs since many companies do not have access or can use Goggle Docs. If anyone needs a copy please reach out to Dave Kozischek

# 5.1. Review of Cable Tensile Testing and Stress Corrosion Parameter Differences from IEC

June Update: Helmut presented contribution on Tensile and Axial loading.

Actions for Tensile experts to check internally to see if difference in testing between 50m versus 100 m FOTP vs IEC. Continue discussion at next meeting in October

Actions: More information is required before decision is made on FOTP-28 requires axial loading vs IEC 60793-1-33

Goal should be adoption of IEC standard. Have agreement to adopt IEC standards by October meeting

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### 6. Next Meeting

Request half a day on Wednesday Oct 3rd from 8am-12PM EST. Next plenary meeting week will be Hybrid and held on the week of October 1st, 2022, in St Petersburg FL.

### 7. Adjournment

Motion 5: motion to adjourn

### M: Sunny Xu S: Pete Pondillo

Result: Motion passes without objection

The meeting was adjourned at 12:49 EST. The meeting was conducted in accordance with the TIA Legal Guidelines and engineering procedures.



### 8. 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:

- o Go to connect.tiaonline.org
- Enter your *Username* (your email address in the TIA database)
- Enter your *Password*
- 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"
- Click on "Documents" and then select the "2022-01 Virtual" folder

#### 9. 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).

#### **10. 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:

David Kozischek, Chair	kozischedr@corning.com	
Roman Shubochkin, Vice-Chair	RShubochkin@ofsoptics.com	(781) 583-7826

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