



**Telecommunications Industry Association**

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Arlington, VA 22201 | [www.tiaonline.org](http://www.tiaonline.org)

**Approved by General Counsel**

TR-42.12 Subcommittee on Optical Fibers and Cables

Meeting Date: 07 October 2020

Location: Teleconference

Approved: 04 November 2020



## Meeting Report

### TR-42.12 Telecommunications Cabling Systems Engineering Committee

Date: October 7, 2020  
Time: 8:00am – 6pm (CDT)  
Location: Virtual GoToWebinar  
Chair: Patrick Van Vickle  
Vice Chair: Roman Shubochkin

#### Meeting Schedule:

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

**GoToWebinar Registration:** <https://attendee.gotowebinar.com/register/223557511254352651>

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#### 1. Administrative/General Business

##### 1.1. Call to Order

The chair, Patrick Van Vickle, called the meeting to order at 8:06 AM CDT

##### 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 to GoToWebinar](#)

You may also sign in if you desire:

Meeting sign-in link: <http://standards.tiaonline.org/standards/committees/rosters/>

Meeting code: **422**

## Meeting Report

Last Name	First Name	Last Name	First Name
Ahmed	Adnan	PROVOST	Lionel
Alex Richard	Legrand	Payton	Scott
Anand Bagaria,RCDD	RIT Tech	Phil Irwin	Panduit
Barrera	Dan	Pondillo	Peter
Bulent Kose	Panduit Corp.	Roman Shubochkin	OFS
Dave Valentukonis	Siemon	Salin Kunplin	Belden
David Bain	TIA	Schmalzigaug	Thomas
Derek Huffman	Corning	Seymour Goldstein	Fluke Networks
Erich Rosenast	Communications	Shelly Buchter	US Conec
FITZMAURICE	KEITH	Sunny Xu	CommScope
Ford	Christin	Tellas	Ronald
Gang HE	EXFO	Todd Harpel	Berk-Tek
Greg Sandels	OFS	Tourreau	Patrick
Heisler	Christopher	VanVickle	Patrick
Herminder Chadha	JP Morgan Chase	Weimann	Peter
Hopper	Scott	dallmann	rick
Huang	Lei	kozischek	david
Jim Ryan	Prysmian	Abbott	John
Keller Jr.	Michael	Bhaumik	sudipta
Kolczynski	Emmanuel	Franc	Henry
Leviton	Mark Dearing	Jenkins	TIA Teesha
Manley	Paul	Kose	Panduit Bulent
Morris	Dan	Ninomiya	Tiger
Oliver	Nelson	Savi	Olindo
		Steven Swanson	Corning Incorporated
		Young	James

Quorum Record

## Meeting Report

22 Companies listed in quorum		Total members at meeting				24	30	22	21	
12 Companies needed to form quorum										
18 Companies attending forming quorum										
Member Status	<b>Quorum Achieved!!!</b>		Send attendance letter	Attained voting status this mtg	Voting member at beginning of this mtg	Number of the last 3 mtgs attended	Virtual	Virtual	NOLA	Albuquerque
	Company						7-Oct	20-Jun	20-Jan	19-Sep
ME	3M									
ME	AFL									
ME	AFL Hyperscale			Voting	2	1	1	1		
ECP	Belden Networks Division			Voting	3	1	1	1		1
ME	Berk-Tek			Voting	1		1			
	Cable Express				3	1	1	1		1
ME	CommScope			Voting	3	1	1	1		1
ME	Corning Incorporated			Voting	3	1	1	1		1
ME	Exfo			Voting	2	1	1	1		
ME	Exporior Laboratories			Voting	3		1	1		1
ME	Fluke Networks				1	1		1		
ME	Tempo			Voting	1	1	1			
	Hitachi									
ECP	Huber + Suhner			Voting	2	1	1			1
ME	JGR Optics Inc			Voting	2		1			1
ME	JP Morgan Chase				1		1			
ME	KITCO Fiber Optics			Voting	3	1	1	1		1
ME	Legrand			Voting	3	1	1	1		1
ME	Leviton			Voting	2	1	1			1
	NAVAIR									
	NAVSEA				2		1	1		
ME	OFS			Voting	3	1	1	1		1
ME	OptoTest Corp			Voting	3	1	1	1		1
ME	Panduit Corp.			Voting	3	1	1	1		1
ME	Photon Kinetics, Inc.			Voting	3	1	1	1		1
ME	Prysmian Group, The			Voting	2	1		1		1
ME	Senko			Voting	3	1	1	1		1
ME	Siemon Company, The			Voting	3	1	1	1		1
ME	Sumitomo Electric			Voting	3	1	1	1		1
ECP	Superior Essex			Voting	2	1	1			1
ME	Total Cable Solutions				1		1			
ME	USConec LTD			Voting	2	1	1	1		
ME	AEM									
ME	R&M				1	1				1
ME	Convergent Connectivity Technologies				2			1		1
ME	Global Datacenter Engineering				2		1	1		
ME	Rosenberger				1		1			
ME	Ericsson				1		1			
ME	BR+A Consulting Engineers				1		1			
	RIT Tech					1				

### 1.3. Current Meeting Agenda Review and Approval

Meeting agenda TR42.12-2020-10-001.agenda\_v3 was reviewed and approved without objection.

### 1.4. Previous Meeting Report Review and Approval

Meeting report TR42.12-2020-06-001.report\_v1 was approved without objection.

### 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

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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

Please also note that **TR-42 will be transitioning to TIA Connect on Tuesday, Oct 13** after which we will need to use TIA Connect for meeting administration and messaging. **After Oct 19, we will no longer be able to upload documents to the TIA FTP site.** You will be able to retrieve old documents, but new documents will be uploaded to TIA Connect - [connect.tiaonline.org/home](http://connect.tiaonline.org/home) please set up your TIA Connect userid if you have not done so already.

Please also note that the “reflector” email distribution will be changing:

Old: [tr4212@tiacomm.org](mailto:tr4212@tiacomm.org)

New: [TIA-TR4212@ConnectedCommunity.org](mailto:TIA-TR4212@ConnectedCommunity.org)

The following documents distributed via the FTP site, reflector, email, or at the meeting:

Table 1. Contributions

Document	Contributor	Affiliation	Title
TR42.12-2020-10-001	Van Vickle	Sumitomo	Meeting Agenda
TR42.12-2020-10-002	Pondille	Corning	IEC SC86A Report
TR42.12-2020-10-003	Kozischek	Corning	ITU Report
TR42.12-2020-10-004	Van Vickle	Sumitomo	ICEA Report
TR42.12-2020-10-005	Xu	CommScope	TIA-492 Fiber Designation Cross Reference Revision
TR42.12-2020-10-006	Goldstein	Fluke	Optical power measurements

### 1.7. Chair’s Report and General Items

Next meeting will be Virtual.

Please note the change to TIA connect and the discontinuation of the FTP site for use for new uploads following the close of this week’s meetings.

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

Please reference the tracking spreadsheet located in the latest FTP working meeting folder, TR42.12 standards.xlsx.

### 1.9. Liaison letters received

None received.

### 1.10. Reports

1.10.1. ~~IEC SC86A~~ — TR42.12-2020-10-002 (no written report since May)

Discuss items up for review at IEC and gauge interest in having a virtual USTAG SC86A working group 1 (fiber group).

Decided to take a poll to ask if members would be interested in reserving time during the virtual TIA meetings for USTAG discussions. Responses were taken via hands raised. Results: Will attend 12; opposed: 0; Abstain: 3. In addition to half day for 42.12 meeting, will ask for a separate 2hr time slot for USTAG discussions moderated by Pete Pondillo.

1.10.2. ITU-T - TR42.12-2020-10-003

1.10.3. ICEA - TR42.12-2020-10-004

## 2. Old Business

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

Update from Pete Weimann, ballot passed, but had technical comments. Will request another ballot, ANSI or TIA as appropriate.

A motion to ballot (ANSI/TIA) was put forward, seconded and approved without objection.

### 2.2. TIA-455-111 (FOTP-111), fiber curl, adoption of IEC 60793-1-34

Update from Phil Irwin on monitoring the timing of the IEC publication. IEC is still in discussion on this document and it has not balloted, at least a year probably for publication.

### 2.3. TIA-455-244 (FOTP-244), Temperature cycling of expressed tubes

Published, closing.

### 2.4. TIA-492 Series Restructuring

#### 2.4.1. Generic (Adapt IEC 60793-2:2015 as ANSI/TIA-4920000-C)

Ballot issuing, will close 12/7/20.

### 2.5. ANSI/TIA-598-D-2014

Still planning in person round robin of with color measurement devices and Munsell books. Delayed until next in person meeting.

Stray poll was taken: Does the update warrant a virtual round robin by correspondence prior to us meeting in person (2021): 0

### 2.6. Update adoptions:

#### 2.6.1. TIA-455-78 adopted from IEC 60793-1-40 Optical Fibres - Part 1-40: Measurement Methods and Test Procedures – Attenuation

Ballot Passed: Abstain: 11, Approve: 20, Approve with Comment: 2, Ballots Not Returned: 11

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Vote to move forward with publication knowing that IEC terminology in this document is out of date with other IEC documents: approve: 10, opposed: 0, abstain: 2

Resolution of comments to be held.

Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
31	2	Annex E	E	Panduit-1	Fiber nomenclature used in the IEC 60793-1-40:2019 is not updated to latest IEC (IEC 60793-2-10) and TIA (TIA-492AAAF) fiber component specifications	Change A1a.1 to A1-OM2, A1a.3 to A1-OM4, and A1b to A1-OM1	Reject, will update with next IEC document update.
8	1	3.1	T	FOA-1	The definition of attenuation in Sec. 3.1 is written to have attenuation calculated based on $\text{Power}(\text{reference})/\text{Power}$ (post attenuation). This definition leads to attenuation being a positive number as it is normally displayed by an OLTS or OTDR. However if one uses Method B with a fiber optic power meter calibrated in dBm, the result will be a negative number, since dBm is defined as $\text{Power}(\text{measured})/\text{Power}(1\text{mw})$ (see FOTP-95, Sec. 6.2). A note should be inserted to correct this, e.g. If power is measured by an instrument measuring in dBm, the attenuation measurement will be a negative number.	Add: If power is measured by an instrument measuring in dBm, the attenuation measurement will be a negative number.	Reject Discussed comment and contribution TR42.12-2020-10-006 regarding this issue.  The main issue revolves around the sign convention of loss being a positive number. Comment considered, but for harmonization and long used convention we will stay with attenuation/loss as a positive number.

A motion to publish was put forward, seconded and approved without objection.

### 2.6.2. TIA-455-62 adopted from IEC-60793-1-47 Optical Fibres – Part 1-47: Measurement Methods and Test Procedures – Macrobending Loss

Ballot Passed: Abstain: 11, Approve: 17, Approve with Comment: 2, Ballots Not Returned: 15

Resolution of comments to be held.

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Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
17	1	7	E	FOA-1	The definition of attenuation in Sec. 3.1 is written to have attenuation calculated based on Power(reference)/Power (post bending). This definition leads to attenuation being a positive number as it is normally displayed by an OLTS or OTDR. However if one uses Method B with a fiber optic power meter calibrated in dBm, the result will be a negative number, since dBm is defined as Power(measured)/Power(1mw) (see FOTP-95, Sec. 6.2). A note should be inserted to correct this, e.g. If power is measured by an instrument measuring in dBm, the attenuation measurement will be a negative number.	Add: If power is measured by an instrument measuring in dBm, the attenuation measurement will be a negative number.	Reject Discussed comment and contribution TR42.12-2020-10-006 regarding this issue.  The main issue revolves around the sign convention of loss being a positive number. Comment considered, but for harmonization and long used convention we will stay with attenuation/loss as a positive number.
24	1	C.2	E	Panduit-1	Fiber nomenclature update.	Change from: "...category A1a and A1b multimode fibres..."  Change to: "...category A1 multimode fibres..."	Reject, will update with next IEC document update.
32	14	E.6	E	Panduit-2	Fiber nomenclature update.	Change from: "Figure E.2 - Example of applying an exponential fit to the spectral data of a B6_a2 fibre"  Change to: "Figure E.2 - Example of applying an exponential fit to the spectral data of a B-657.A2 fibre"	Reject, will update with next IEC document update.

A motion to publish was put forward, seconded and approved without objection.

### 2.6.3. TIA-455-80 adopted from IEC-60793-1-44 Optical Fibres – Part 1-44: Measurement Methods and Test Procedures – Cut-off Wavelength

Ballot Passed: Abstain: 8, Approve: 14, Approve with Comment: 0, Ballots Not Returned: 21



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A motion to publish was put forward, seconded and approved without objection.

### 2.6.4. TIA-455-175 adopted from IEC-60793-1-42 Optical Fibres – Part 1-42: Measurement Methods and Test Procedures – Chromatic Dispersion

Ballot Passed: Abstain: 8, Approve: 14, Approve with Comment: 0, Ballots Not Returned: 21

A motion to publish was put forward, seconded and approved without objection.

### 2.6.5. TIA-455-176 adopted from IEC-60793-1-20 Optical Fibres – Part 1-20: Measurement Methods and Test Procedures – Fibre Geometry

Ballot Passed: Abstain: 11, Approve: 19, Approve with Comment: 1, Ballots Not Returned: 13

Resolution of comments to be held.

Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
25	16	B.3	E	Panduit-1	Fiber nomenclature update (and add A1-OM5b).	Change from: "...A1a fibres: A1a.1b, A1a.2b, A1a.3b..."  Change to: "...A1 fibres: A1-OM2b, A1-OM3b, A1-OM4b, A1-OM5b..."	Reject, will update with next IEC document update.

A motion to publish was put forward, seconded and approved without objection.

### 2.6.6. TIA-455-177 adopted from IEC-60793-1-43 Optical Fibres – Part 1-43: Measurement Methods and Test Procedures – Numerical Aperture

Ballot Passed: Abstain: 11, Approve: 19, Approve with Comment: 1, Ballots Not Returned: 13

Resolution of comments to be held.

Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
4	37	Forward	E	Panduit-1	Document is not a bilingual version, remove the statement	Delete: "This bilingual version (2019-09) corresponds to the monolingual English version, published in 2015-03."	Reject, will update with next IEC document update.

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Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
14	5	8.3	E	Panduit-2	Fiber nomenclature update.	Change from: .."far-field scan of an A1a.2 multimode fibre"..."  Change to: "... far-field scan of an A1: A1- A1-OM3 multimode fibre..."	Reject, will update with next IEC document update.
18	14	B.2 Table B.1	E	Panduit-3	Fiber nomenclature update: update the product IDs in the first column to match with new fiber nomenclature.		Reject, will update with next IEC document update.

A motion to publish was put forward, seconded and approved without objection.

### 2.6.7. TIA-455-178 adopted from IEC-60793-1-32 Optical Fibres – Part 1-32: Measurement Methods and Test Procedures – Coating Stripability

Ballot **Failed**: Abstain: 9, Approve: 11, Approve with Comment: 1, Ballots Not Returned: 22.

Requesting vote to rebalot in this meeting.

Resolution of comments to be held.

Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
0	0		E	Commscope-1		Change from: Publication Number of TIA/EIA-455-178-C  Change to: Publication Number of ANSI/TIA-455-178-C	Update to be done by TIA in rebalot.

A motion to rebalot was put forward, seconded and approved without objection.

### 2.6.8. TIA-455-67 adopted from IEC-60793-1-51 Optical Fibres- Part 1-51: Measurement Methods and Test Procedures- Dry Heat

Ballot Passed: Abstain: 13, Approve: 17, Approve with Comment: 1, Ballots Not Returned: 13

Resolution of comments to be held.

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Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
5	3	1	E	Panduit-1	Fiber nomenclature update.	Change from: "The purpose of this standard is to determine the suitability of optical fibre sub-category A1a to A1d multimode fibres and class B and C single-mode fibres"...	Reject, will update with next IEC document update.
						Change to: "The purpose of this standard is to determine the suitability of optical fibre sub-category A1-OM1 to A1-OM5 and A1d multimode fibres and class B and C single-mode fibres"...	
6	2	4	E	Panduit-2	Fiber nomenclature update.	Change from: ..."sub-categories A1a to A1d"...	Reject, will update with next IEC document update.
						Change to: ..."sub-categories A1-OM1 to A1-OM5 and A1d"...	
6	2	5.2	E	Panduit-3	Update to the latest reference revision	Change from: "...using either IEC 60793-1-40:2001, Annex B (insertion loss) or IEC 60793-1- 40:2001, Annex C (backscattering)..."	Reject, will update with next IEC document update.
						Change to: "...using either IEC 60793-1-40:2019, Annex B (insertion loss) or IEC 60793-1- 40:2019, Annex C (backscattering)..."	

A motion to publish was put forward, seconded and approved without objection.

### 2.6.9. TIA-455-74 adopted from IEC-60793-1-53 Optical Fibres- Part 1-53: Measurement Methods and Test Procedures- Water Immersion

Ballot Passed: Abstain: 13, Approve: 17, Approve with Comment: 1, Ballots Not Returned: 13

Resolution of comments to be held.

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Page	Line	Clause	E/T/TN	ID	Comment (rationale)	Proposed change (specific; add, delete. From-to)	Resolution
6	2	4	E	Panduit-1	Fiber nomenclature update.	Change from: ..."sub-categories A1a to A1d"  Change to: "sub-categories A1-OM1 to A1-OM5 and A1d"	Reject, will update with next IEC document update.
6	2	5.2.1	E	Panduit-2	Updated versions of the standards should be referenced	Change from: ..."either IEC 60793-1-40:2001, Annex B (insertion loss) or IEC 60793-1-40:2001, Annex C (backscattering)"  Change to: ..."either IEC 60793-1-40:2019, Annex B (insertion loss) or IEC 60793-1-40:2019, Annex C (backscattering)"	Reject, will update with next IEC document update.

A motion to publish was put forward, seconded and approved without objection.

### 2.6.10. TIA-455-160 adopted from IEC-60793-1-50 Optical Fibres- Part 1-50: Measurement Methods and Test Procedures- Damp Heat (Steady State)

Ballot Passed: Abstain: 13, Approve: 17, Approve with Comment: 0, Ballots Not Returned: 13

A motion to publish was put forward, seconded and approved without objection.

### 2.6.11. TIA-455-122 adopted from Adopt IEC 60793-1-48: Measurement Methods and Test Procedures- Polarization Mode Dispersion

Ballot Passed: Abstain: 13, Approve: 11, Approve with Comment: 0, Ballots Not Returned: 18

A motion to publish was put forward, seconded and approved without objection.

## 3. New Business

### 3.1. TR42.12-2020-10-005 TIA-492 Fiber Designation Cross Reference Revision

A motion to update the fiber cross reference in ANSI/TIA-492AAAF and ANSI/TIA-492CAAC through opening a project per the modified contribution (TR42.12-2020-10-005 TIA-492 Fiber Designation Cross Reference Revision\_psv\_2020\_10\_07.pptx) was moved, seconded, and passed without objection.

### 3.2. Standards Spreadsheet review - TR42.12 standards\_2020\_10\_07 was reviewed.

## 4. Next meeting



## Meeting Report

February 1-5, 2021, Virtual

Request half day for 42.12, 2 hours for USTAG meetings.

### 5. Adjournment

The meeting was adjourned at 10:38 CDT.

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

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### AVAILABILITY OF MEETING DOCUMENTS:

All meeting attendees are instructed to download contributions and other meeting documents from the TIA TR42 FTP site (<http://ftp.tiaonline.org/TR-42/>) before the meeting.

To access the User Name and Password, please follow the directions below:

- Go to <https://www.tiaonline.org/all-standards/committees/admin>
- Enter your *User Name* (your email address in the TIA database)
- Enter your *Password*
- Click “Go”
- Click “*Committee Member Tools*” (if you do not automatically land on this page)
- On right navigation bar, under “*General*”, click “*Your Committee Tools Dashboard*”
- You will see “*Committee Tools Dashboard*” on top, under “**Your Committees**” you will see FTP User Name and Password in **red text** next to “FTP UN” and “PW”

### 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 the TR42 FTP site 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 FTP folders by the EDC as soon after receipt as possible, preferably within one business day. Notification of the posting shall be made to the group’s email reflector list by the EDC within one working day of the posting. All contributions shall be posted to the appropriate location on the TIA FTP site 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



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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 the TR-42 FTP site within one week of meeting adjournment.

**Questions and comments on this agenda should be submitted to:**

Patrick Van Vickle, Vice Chair	pvanvickle@sumitomoelectric.com	919.541.8153
Roman Shubochkin, Vice-Chair	RShubochkin@ofsoptics.com	