

TIA TR-42 Liaison to IEEE

Val Rybinski

Vice-Chair, TR-42.7

**February 2005
Santa Clara, CA**

TIA TR-42.7 Meeting

- **January 31 and February 1 and 2, 2005**
- **Mesa, AZ**
- **Reviewed IEEE 802.3an 10GBASE-T cabling needs**
- **Addressed revisions to TSB-155 and addendum 10 (augmented category 6) to '568-B.2**

Summary of TIA TR-42 Output

- **Liaison Letter**
- **Draft 1.3 of TSB-155: legacy category 6 cabling from 250 MHz up to 500 MHz**
- **Draft 1.4 of TIA-568-B.2-10: augmented category 6 cabling**
- **Documents are anticipated to be ready for committee ballot in June of 2005**

TR-42.7 Liaison Letter

“Thank you for your continued feedback on the 10GBASE-T cabling specifications.

TIA TR-42 is continuing the development work on TSB-155 addressing installed category 6 cabling and Addendum 10 of TIA 568-B.2 for augmented category 6 cabling. We would appreciate an update and background for the alien ELFEXT specifications.”

Status of TSB-155, ongoing

PN-3-0134 (proposed TSB155): Additional Requirements for 4-Pair 100Ω Category 6 Cabling, draft 1.3

- Maximum frequency specified is 500 MHz**
- All shall statements are removed**
- Cabling insertion loss and return loss**
- Cabling NEXT/PSNEXT loss**
- Cabling ELFEXT/PSELFEXT loss**
- Cabling PSANEXT**
- Cabling Cabling Mitigation methods**
- Level III field testers**

Status of TSB-155, New items

PN-3-0134 (proposed TSB155): Additional Requirements for 4-Pair 100 Ω Category 6 Cabling, draft 1.3

- Power sum Alien ELFEXT loss, 100 m channel**
- Power sum Alien ELFEXT loss, 55 m channel**
- Annex C: Alien crosstalk mitigation**

TSB-155 Mitigation (annex C)

Mitigation is one strategy to reduce alien crosstalk coupling for existing category 6 cabling plant. Mitigation includes:

- **Use non-adjacent patch panel ports**
- **Separate equipment cords**
- **Use panels with improved PSNEXT margin (TBD)**
- **Unbundling cables**
- **Use of augmented category 6 components**
- **All of the above**

Status of '568-B.2-10, ongoing

- PN-3-4426-AD10 (augmented category 6):
Additional Requirements for 4-Pair 100Ω
Augmented Category 6 Cabling, draft 1.4**
- Maximum frequency specified is 500 MHz**
 - Cabling and component insertion loss**
 - Cabling and component NEXT/PSNEXT loss**
 - Cabling and component ELFEXT/PSELFEXT loss (TBD)**
 - Cabling PSANEXT and component PSANEXT (TBD)**
 - Cabling and component AFEXT (TBD)**
 - Field tester requirements (TBD)**

Status of '568-B.2-10, New items

**PN-3-4426-AD10 (augmented category 6):
Additional Requirements for 4-Pair 100Ω
Augmented Category 6 Cabling, draft 1.4**

- Cable NEXT loss and PSNEXT loss**
- Connecting hardware NEXT loss**
- Channel Alien PSELFEXT**
- Augmented category 6 may be referred to as “AC6”
(TBD)**

Next TIA Meeting

June 6 - 10, 2005

Montreal, Quebec, CAN

www.tiaonline.org

Thank you

Contact Information:

Val Rybinski

**The Siemon Company
101 Siemon Company Drive
Watertown, CT 06795**

cell phone: (602) 793-4029

valerie_rybinski@siemon.com