

TIA TR-42 Liaison to IEEE

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Vice-Chair, TR-42.7

Chair, TR-42.7.1

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TIA TR-42-7 Meeting

- **Week of June 3, 2004**
- **Providence, RI**
- **Reviewed IEEE 802.3an
10GBASE-T cabling
needs**

Summary of TIA TR-42 Output

- **2 Liaison Letters**
- **1 draft TSB (TSB155)
addressing additional
information on the extended
frequency transmission
performance of category 6
cabling from 250 MHz up to
625 MHz**

TR-42.7 Liaison #1

The initial work of characterizing class E cabling to 625 MHz is complete

- **Work is documented in draft 1 of proposed PN-3-0134 TSB-155**
- **NEXT loss/PSNEXT loss may not meet channel specifications when extrapolated beyond 330 MHz (new equations are provided)**

TR-42.7 Liaison #1, cont.

- **Alien crosstalk is defined**
- **Additional guidelines for field test equipment and alien crosstalk field test methods are provided**
- **Draft 1 of proposed PN-3-0134 TSB-155 is provided**

TR-42.7 Liaison #2

Development of augmented category 6 cabling requirements

- **Initial recommendations provided**
- **Augmented category 6 cabling shall meet draft 1 of TSB-155, ANSI/TIA/EIA-568-B.2-1 category 6, and ISO/IEC 11801 Ed2:2002 Class E channels with additional enhancements as follows:**

TR-42.7 Liaison #2, cont.

- **Channel insertion loss shall meet Class F channel specification**
- **Channel power sum alien near-end crosstalk shall meet:**

$$\text{PSANEXT} \geq 60 - 10\log(f), 1 \leq f \leq 100 \text{ MHz}$$

$$\text{PSANEXT} \geq 60 - 15\log(f), 100 < f \leq 625 \text{ MHz}$$

TR-42.7 Liaison #2, cont.

- **Augmented category 6 cabling shall support the 10GBASE-T application over a worst-case 100 meter, 4-connection topology.**
- **TR-42.7 requests that IEEE 803.3an adopt augmented category 6 cabling as a media objective.**
- **Draft 1 on augmented category 6 cabling should be available after the next TIA meeting in October 2004.**

Thank you

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