



ISO/IEC JTC 1/SC 25/WG 3 N 738

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ISO/IEC JTC 1/SC 25/WG 3
Customer Premises Cabling
Secretariat: Germany (DIN)

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TITLE: Liaison letter from ISO/IEC/JTC 1/SC 25 to IEEE 802.3 on Balanced cable performance changes due to temperature changes caused by power feeding, IEEE P802.3an Update
SOURCE: WG 3
(Ixtapa 81)
PROJECT: 25.03.02.02: Generic cabling systems for customer premises
STATUS: Liaison report approved by SC 25/WG 3, 2005-01-14.
ACTION ID: FYI
DUE DATE: N/A
REQUESTED: For information
ACTION A response to the this liaison report is welcome any time as it will support work done by correspondence that shall develop a detailed answer to the question of IEEE 802.3 not later than at the next meeting of SC 25/WG 3, 2005-09-26/30, in Oxford, UK
MEDIUM Def
No of Pages 2 (including cover page)

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SUBCOMMITTEE No. 25: INTERCONNECTION OF INFORMATION TECHNOLOGY
EQUIPMENT

WORKING GROUP 3: CUSTOMER PREMISES CABLING
INDUSTRIAL PREMISES TASK GROUP

**Liaison letter from ISO/IEC/JTC 1/SC 25 to IEEE 802.3, on
Balanced cable performance changes due to temperature changes caused
by power feeding, IEEE P802.3an Update**

To: Bob Grow; Chair, IEEE 802.3 (bgrow@ieee.org)
Cc: Brad Booth; Chair, IEEE P802.3an Task Force (bbooth@ieee.org)
From: ISO/IEC JTC 1/SC 25/WG 3 Customer premises cabling
Date: 2005-01-14
Venue: Ixtapa, Mexico, January 2005
**Subject: Balanced cable performance changes due to temperature changes
caused by power feeding, IEEE P802.3an Update**

ISO/IEC/SC25/JTC1/SC 25/WG 3 thanks you for your recent liaison letter (SC 25/WG 3 N 730, dated 2004-11-29) related to co-existence of 10GBASE-T with IEEE 802.3af remote power.

The current balanced cabling specifications in ISO/IEC 11801:2002 support up to 10 W of delivered power per pair for a total of 40 W in a 4-pair cabling channel. The effect of temperature rise on transmission properties has to be studied in detail.

Regarding IEEE 802.3af and future enhancements with increased (greater than 12,95 W/pair) power over balanced cabling, the rise in temperature will depend on the cable construction, installation conditions, ambient temperature, and heat transfer conditions. This will require considerable investigations and modelling to reach a more comprehensive understanding. SC 25/WG 3 would appreciate more specific information on the intended current, voltage, and power that are planned as soon as possible, so that SC 25/WG 3 can narrow down the area of investigation, that have started already.

SC 25/WG 3 anticipates having more information available by the next meeting in September 2005.