

# ISO/IEC SC25/WG3 Meeting

## Buenos Aires: 22-26 February 2010

### - Customer Premises Cabling -

## Highlights:

- ISO 11801 Ed.2 Am.2 FDAM approved
- ISO 24764 DC Cabling FDIS approved
- ISO 14763-2 Cabling Plan/Instn FCD failed
- ISO 29125 Remote Powering PDTR failed
- ISO cabling standards to be re-structured
- liaison activity re: MMF & connector loss



47 Participants

20 Nations

# ISO/IEC 11801 Ed.2 Amendment

- **introduction of Class E<sub>A</sub> and Class F<sub>A</sub> plus electromagnetic performance requirements:**
  - **balance for unscreened cabling**
  - **coupling attenuation for screened cabling**
- **split into channel (Am.1) plus link & component specs (Am.2) in order to expedite development**

## ISO/IEC 11801 Ed.2 Amendment 2

- contains link/cords/components/other material
- FDAM approved; 26 nations in favour, 4 against
- all 46 national comments resolved at meeting
  - editorial comments plus 1 obvious technical error
  - technical corrections processed as corrigendum
- forwarded to IEC Central Office for publication
- many differences to TIA, especially with Cat 6A

# ISO/IEC 24764

## Data Centre Cabling

- **FDIS approved; 26 nations in favour, 1 against**
- **all 33 national comments resolved at meeting**
  - **editorial comments only accepted**
- **forwarded to IEC Central Office for publication**
- **many differences to TIA-942 (now being updated)**

# **ISO/IEC 14763-2**

## **Cabling Planning & Installation**

- **FCD failed; 16 nations in favour, 8 against**
- **394 national comments including 169 technical**
- **voting ended 25 Feb, hence comments unresolved**
- **preparation planned in advance of next meeting**
- **may go to 2<sup>nd</sup> FCD or advance to FDIS, if supported**
- **expected to become a compliance requirement within tenders and contracts**

# ISO/IEC TR 29125

## Cabling Guidelines for Remote Powering

- provides guidance on both new & existing cabling
- gives worst case temp rise for cable bundles of different Category vs. current carried per pair
- provides guidance on connector mating/unmating under electrical load ■
- referenced by IEEE 802.3at (for PoE and PoE-*plus*)

**Table 1** – Worst case temperature rise versus current per pair in a bundle of 100 4-pair category 5 cables (all pairs energized)

Temperature rise °C	Current per pair mA
5,0	420
7,5	520
10,0	600
12,5	670
15,0	720

NOTE These values are based on measurement

# ISO/IEC TR 29125

## Cabling Guidelines for Remote Powering

- **2<sup>nd</sup> PDTR failed; 9 nations in favour, 12 against**
- **182 national comments including 108 technical**
- **all comments resolved, many no-voting nations happy**
- **proposed to elevate to DTR if IEC Central Office agrees, otherwise a 3<sup>rd</sup> PDTR will be circulated**
- **content very similar to published EIA/TIA TSB-184**

## Liaison Request to IEC SC86B

- recent changes to 40GBASE-SR4/100GBASE-SR10 require a new connector specification with 0.5dB loss
- SC86B priorities should favour 12- and 24-way MPO plus LC connectors commonly used in data centres
- need to develop new specifications to support lower loss MMF connectors for SC25 WG3 cabling standards



## Liaison Request to IEEE 802.3

- **ISO/IEC 11801 requires optical connector RL to be  $\geq 20$ dB but has no requirement for optical channel RL**
- **ISO/IEC 11801 does not address connector at equipment**
- **noted that IEEE 802.3 MMF applications @ 1G and above require transmitter to tolerate 12dB of optical RL**
  - 1. Does 12dB requirement include RL at equipment connectors?**
  - 2. Can equipment connectors consist of an open fibre?**
  - 3. Does this requirement include an allowance for Rx reflections?**
  - 4. Is Rayleigh scattering from the installed fibre included?**

## Future Meetings

<b>ISO/IEC SC25 WG3</b>	<b>18-21 Oct 2010</b>	<b>Seattle, WA</b>
<b>ISO/IEC SC25</b>	<b>22 Oct 2010</b>	<b>Seattle, WA</b>
<b>ISO/IEC SC25 WG3</b>	<b>04-08 Apr 2011</b>	<b>Frankfurt (TBC)</b>
<b>ISO/IEC SC25 WG3</b>	<b>TBD Oct 2011</b>	<b>Melbourne (TBC)</b>
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