## **TERA Becomes the Standard Connector for Next Generation Copper Cabling**

In preparation for the future Class  $F_A$  standard, the IEC international committee overwhelmingly approves the IEC 61076-3-104 Ed. 2.0 standard, based on Siemon's TERA interface.

For the second time, the International Electrotechnical Commission (IEC) has recognized the interface based upon Siemon's TERA connector as the standard interface for a new high-performance class of cabling. The second edition IEC 61076-3-104 was published in preparation for the pending Class  $F_A$  standard as well as ISO/IEC 15018 (Generic cabling for homes).

Created by an amendment to ISO/IEC 11801, Class F<sub>A</sub> is specified to an upper frequency of 1000 MHz and is targeted to support the next generation of data applications beyond 10GBASE-T and all frequencies of CATV video. To support the future Class F<sub>A</sub> parameters, the new connector requirements specified in IEC 61076-3-104, Ed. 2.0 extend the upper frequency for balanced twisted-pair connectors from the category 7 upper limit of 600 MHz to 1000 MHz.

Although the TERA connector remains unchanged since its launch in 1999, it meets or exceeds all mechanical, dimensional and electrical transmission property requirements specified in the new IEC 61076 3-104, Ed. 2.0 Standard. The overall superior design elements of the IEC 61076-3-104 "TERA" interface resulted in overwhelming support for approval, as evidenced by the 22-0 voting results.

Independent testing and the IEC voting results indicate significant global backing and confidence in the TERA cabling system's ability to support future applications. "When the IEC first standardized on TERA for Class F/Category 7 cabling in 2003, the committee believed that it would support future applications", explained Dan Mullin, Director of Siemon Labs, the company's research and development group. "That confidence proved correct. TERA systems installed as early as 1999 are fully compliant to the recently published IEEE 802.3an 10GBASE-T standard." In fact, Class F systems are the only pre-standard installed copper systems ready to support 10GBASE-T up to 100m without additional testing or mitigation.

The IEC 61076-3-104, Ed. 2.0 and Class F<sub>A</sub> standards are similarly expected to support future application standards beyond 10Gb/s. According to Mullin, the IEC and Siemon's track record of developing future-proof global standards and components not only virtually assures future application support, but also deeply underscores the importance of future-proof networks. "Siemon Labs and the ISO/IEC have consistently been out ahead of the curve, giving end-users a chance to build a network infrastructure that can support multiple applications and provide an extended lifecycle. A TERA system installed 7 years ago in expectation of 10GBASE-T will most likely support applications beyond 10Gb/s without additional upgrades."

As a standards-recognized interface, the TERA connector is a non-proprietary solution, offered by multiple manufacturers. This non-RJ interface fits within a

standard RJ-45 footprint and is easily integrated into current electronics through the use of hybrid TERA to RJ patch cords.

For ease of installation, TERA outlets feature a simple "tool-less" termination procedure, which allows termination times of under 4 minutes. The outlet also offers integrated Quick-Ground technology. During standard termination steps, the cable shield is automatically terminated, eliminating additional grounding steps. By dramatically simplifying the grounding process, the TERA connector allows users to benefit fully from the performance and EMI resistance of a fully-shielded solution. For a video detailing TERA outlet termination, visit: http://www.siemon.com/us/download/installation.asp#videos.

Siemon's TERA is part of the most comprehensive line of 10Gb/s cabling solutions available. For more information on Siemon's entire 10G ip  $^{\text{TM}}$  product family, including 10G  $6\text{A}^{\text{TM}}$  UTP, 10G 6A F/UTP and TERA as well as  $X\text{GLO}^{\text{@}}$  fibre optic solutions, visit: www.siemon.com.

## **About Siemon**

Established in 1903, Siemon is an industry leader specialising in the manufacture and innovation of high quality, high-performance network cabling solutions. Headquartered in Connecticut, USA, with global offices and partners throughout the world, Siemon offers the most comprehensive suite of copper (unshielded and shielded twisted-pair) and fibre cabling systems available. With over 400 active patents specific to structured cabling, Siemon Labs invests heavily in R&D and development of industry standards, underlining the company's long-term commitment to its customers and the industry.

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