



Connecting the World
to a Higher Standard

Siemon at the Forefront of Emerging Single-Pair Ethernet

October 18, 2018. Watertown, CT — Siemon, a leading global network infrastructure specialist, is pleased to announce an industry leadership position in the development and education of emerging single-pair Ethernet applications with Valerie Maguire, Global Sales Engineer, acting as Chief Editor for the IEEE single-pair Ethernet amendment, Brian Celella, Principle Electrical Engineer, co-editing the developing ISO/IEC 11801-1 amendment defining single-pair cabling performance requirements, and the release of a new white paper entitled, “The Emerging Role of Single-Pair Cabling in Enterprise Networks.”



IEEE P802.3cg, “Physical Layer Specifications and Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced Pair of Conductors” addresses the emerging application commonly referred to as single-pair or BASE-T1 Ethernet. This game-changing application is positioned to fill the gap in industrial automation and other low-speed connections with non-proprietary cabling, while also providing a path for them to

merge with the Internet of Things (IoT). Single-pair Ethernet will offer several advantages, including reduced cost, operation over distances greater than 100 meters, delivery of dc power, and potential compatibility with traditional four-pair network cables and connectivity, making it an attractive alternative to traditional fieldbus communication protocols.

In response to this emerging technology, both TIA and ISO/IEC standards organizations are developing single balanced twisted-pair cabling specifications, and both recently selected the single-pair connector form factor specified in IEC 63171-1 based on the LC optical fiber form factor for use in enterprise and intelligent building commercial environments and the ruggedized form factor specified in IEC 60176-3-125 for use in light and heavy industrial environments.

“The real story is that international harmonization of both a commercial and a ruggedized interface by TIA and ISO/IEC paves the way toward broad market acceptance of single-pair Ethernet as the media of choice for rapidly evolving BAS and IoT applications,” says Mike Boisseau, Copper Business Unit Leader for Siemon. “Siemon is pleased to support Brian’s contribution to the development of the ISO/IEC amendment and Valerie’s leadership position on the IEEE P802.3cg Task Force, and we are committed to being active contributors to ongoing TIA and ISO/IEC initiatives aimed to develop the cabling specifications that will support single-pair Ethernet.”

The key technology under development by the P802.3cg Task Force for enterprise applications is 10BASE-T1L, which has the objective of supporting 10 Mb/s Ethernet over long reach single balanced twisted-pair cabling up to at least 1000m. Current projections have the P802.3cg amendment targeted for publication approval at the end of 2019.

To educate the industry about single-pair Ethernet standardization efforts and the potential of this emerging applications, Siemon has also released a new white paper authored by Valerie Maguire and entitled, "The Emerging Role of Single-Pair Cabling in Enterprise Networks." To access the white paper, visit: go.siemon.com/single-pair.

###

About Siemon

Established in 1903, Siemon is an industry leader specializing in the design and manufacture of high quality, high performance IT infrastructure solutions and services for Data Centers, LANs and Intelligent Buildings. Headquartered in Connecticut, USA, with global sales, technical and logistics expertise spanning 100 countries, Siemon offers the most comprehensive suites of copper and optical fiber cabling systems, cabinets, racks, cable management, data center power and cooling systems and Intelligent Infrastructure Management solutions. With more than 400 patents specific to structured cabling, Siemon Labs invests heavily in R&D and the development of Industry Standards, underlining the company's long-standing commitment to its customers and the industry. Through an ongoing commitment to waste and energy reduction, Siemon's environmental sustainability benchmarks are unparalleled in the industry, including 179% global carbon negativity and zero-landfill status.

Siemon Interconnect Solutions (SIS) is a Siemon business unit comprised of a team of dedicated technical sales professionals supported by Siemon Labs, mechanical, electrical and signal integrity engineers committed to solving industry and customer driven interconnect challenges. We provide custom network infrastructure solutions to: OEM's, Leading Manufacturers, Value-Added Resellers and System Integrators.

Contact Information

Betsy Conroy
betsy_conroy@siemon.com
860-945-4217