



Connecting the World to a Higher Standard

Siemon First To Demonstrate Single-Pair Ethernet Over 400 Meters of Balanced Twisted Pair Copper Cabling

Watertown, CT – In another industry first, Siemon, a leading global network infrastructure specialist, demonstrated operation of 10BASE-T1L Single-Pair Ethernet (SPE) over 400 meters of TERA® balanced twisted pair copper cabling at the BICSI® Fall Conference in Las Vegas, NV. For a detailed video overview of Siemon's SPE demonstration, visit:

<https://go.siemon.com/spe-video>

Siemon's fully shielded TERA SPE solution is the first 23 AWG balanced twisted-pair copper cabling system proven to support 10BASE-T1L over distances of up to 400 m (1,300 ft) for Operational Technology (OT) and 10 Mb/s enterprise IT applications. This is a milestone step in confirming SPE's ability to bring Ethernet network compatibility, including operation over a standardized, non-proprietary cabling infrastructure, to a wide range of OT devices operating at 10Mb/s or less such as sensors, actuators, and relays commonly used in building automation and industrial applications.

In Siemon's demonstration, SPE was deployed to administer a basic access control system consisting of magnetic door locks responding to inputs from localized inputs like card readers and remotely managed control functions. Since SPE-enabled end-device and system development is in the pre-market stage, media conversion boards supplied by Analog Devices, Inc. were used in the evaluation to convert controller and end device 10BASE-T TCP/IP output signals to 10BASE-T1L. SPE system operation was successfully demonstrated over 400 meters of a one-pair channel constructed from Siemon category 7A cable and four Siemon TERA connectors. All Siemon connectors, cords, and cables in the SPE channel are commercially available with an installed base of millions of connections.

"It's easy to specify new TERA permanent links that are capable of supporting both future IT and OT device connections over 400-meter distances," says John Siemon, CTO and Vice President

of Operations. “Because the Siemon TERA SPE cabling system is fully-shielded, it has the advantage of supporting up to four unique SPE applications and controllers over a single 4-pair standards compliant structured cabling channel – an ability that’s referred to as ‘cable sharing.’ Cable sharing saves material cost and more efficiently utilizes pathway space compared to deploying four SPE applications over four individual one-pair cables.”

To learn more about Single-Pair Ethernet, visit Siemon’s SPE resource site at www.siemon.com/SPE. In addition to a detailed video demonstration, visitors can download multiple Technical Briefs covering strategies and topologies to support future proof and flexible SPE applications in both new and retrofit installations, as well as TERA system information and product specifications.

Siemon will be showcasing 10BASE-T1L operation over TERA SPE cabling at the upcoming InfoComm 2021, to be held October 19-23 in Orlando, FL. Please visit booth # 2021 for live product and system demonstrations. To learn more about attending InfoComm, visit <https://www.infocommshow.org/>

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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 150 countries, Siemon offers the most comprehensive suites of copper and optical fiber cabling systems, racks, cable management, 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.

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