CABLING FOR THE FUTURE

Innovate

The Siemon Company Newsletter | Issue 11

ConvergeIT™

Cabling Solutions for Intelligent Buildings

To build a brighter future...we must change the way we build

Siemon proudly joins Cisco Digital Ceiling partner community P06

Siemon offers free WheelHouse® Interactive Data Center Guide P14

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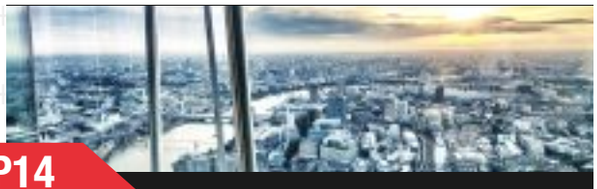

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Siemon offers free WheelHouse® Interactive Data Center Guide

EXPLORE

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KING OF PoE

Siemon Jacks crowned king of PoE

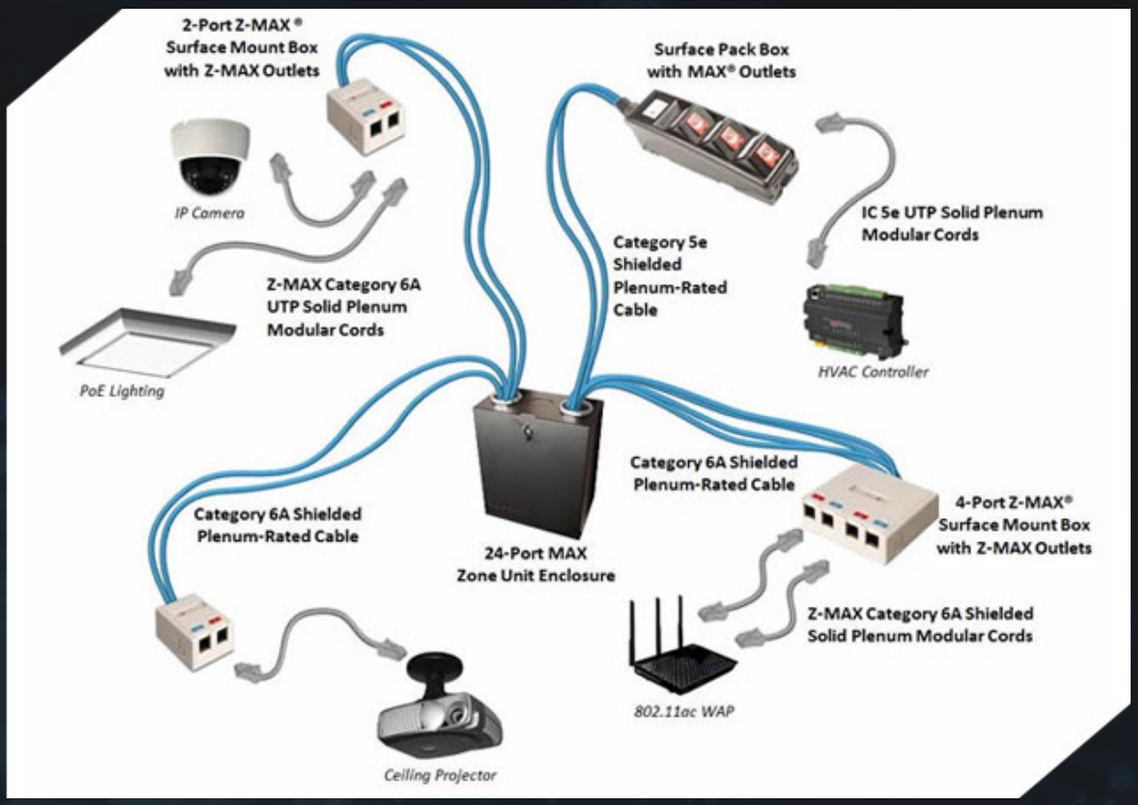
EXPLORE

EXPLORE OUR INNOVATE ARCHIVE

Siemon's Plenum-Rated Cabling and Connectivity Facilitates the Deployment of Intelligent Buildings

Ideal for converging all low-voltage building systems onto a single physical infrastructure, these plenum-rated solutions can be located within the plenum (air handling) space to deliver remote power and provide connectivity for a variety of IP-based network systems-from wireless, building automation, and LED lighting, to audiovisual, security, life safety and other low-voltage equipment and devices.

Today, more companies than ever are striving to deploy profitable intelligent buildings that provide significant capital and operational savings, while improving sustainability and overall customer and employee satisfaction. At the same time, the "Internet of Things" is rapidly becoming a reality as more low-voltage devices become network enabled for efficient power, control and communication across integrated systems.

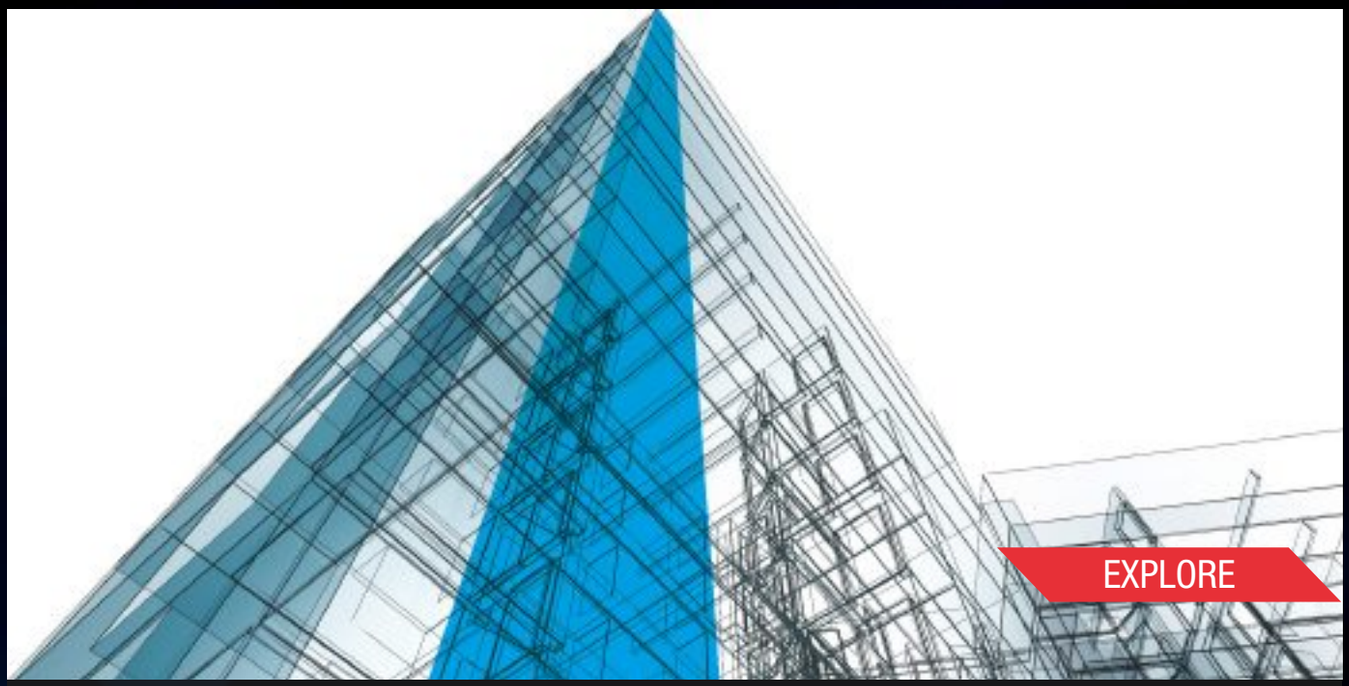


EXPLORE

Siemon ConvergeIT™
Cabling Solutions for Intelligent Buildings

Siemon ConvergeIT is a unified intelligent building (IB) cabling solution that combines Siemon's proven quality with advanced copper and fiber cabling technology to create a structured cabling system that converges critical data, voice, video and low-voltage building systems onto a single unified physical infrastructure, providing significant cost savings and sustainability over the life of the facility.

EXPLORE



EXPLORE

Capital Savings

Integrates disparate platforms to one system

Consolidates cabling

Reduces pathways and material cost

Reduces labor cost

Up to 75% savings by using PoE versus AC power runs

Operational Savings

Efficient low-voltage PoE saves energy

Less costly moves, adds & changes

Enables analysis to improve building control, management and security.

Lowers energy consumption by up to 50%

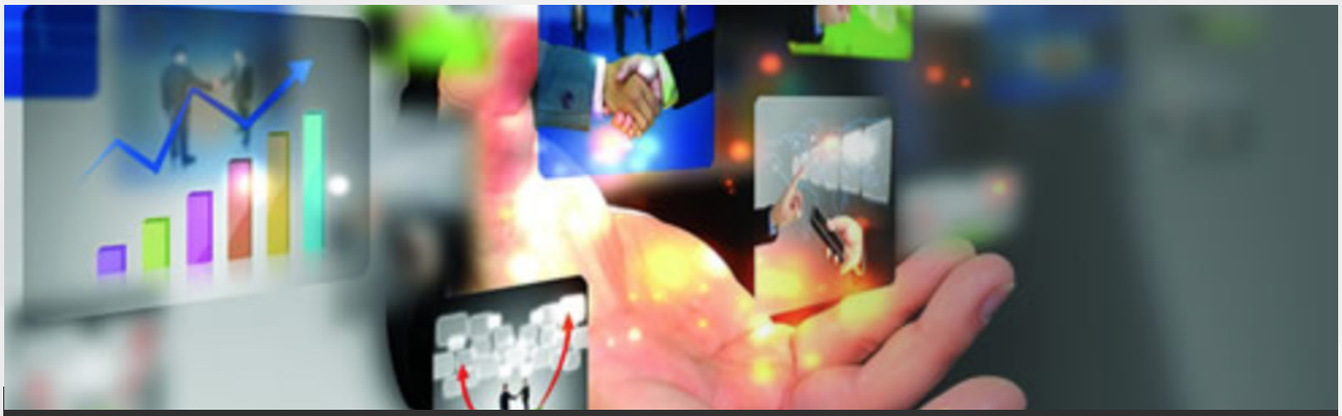
User Experience

Improve customer/ employee satisfaction, engagement & rentention

Improves employee health & wellbeing

Better facilitates custom-controlled environments

Increases employee productivity by up to 18%



Siemon is proud to be named a Cisco Digital Ceiling Enabler Partner for Cisco's Digital Ceiling Framework.

The Digital Ceiling Framework accelerates digital transformation and extends benefits of the Internet of Things (IoT) throughout facilities by converging multiple building networks-lighting, heating and cooling, IP video, IoT sensors and much more-on a secure and intelligent network platform

Unequivocally aligned with Siemon's ConvergeIT™ Cabling Solutions for Intelligent Buildings that create a unified physical infrastructure for converging low-voltage building systems, Cisco's Digital Ceiling framework and set of solutions aims to create buildings that are not only smart, but also connected, secure and easy to manage.

A key part of the Cisco Digital Ceiling framework includes converging previously disparate systems and devices on a single IP network using Cisco switches and Power over Ethernet (PoE), including PoE-powered LED lights with sensors that provide 85% lower energy costs. Siemon's ConvergeIT Cabling Solutions include advanced copper shielded cables and connectivity that provide superior support of PoE-enabled systems.

EXPLORE


Boost User Experiences,
Building Efficiency and Insight
Move to a Cisco Digital Ceiling
Lighting
Building Automation
Enablers
ISVs
cisco
Find out how:
www.cisco.com/go/digitalceiling
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Unleashing stranded power and reducing costs using shared Zero-U space with Siemon VersaPOD® cabinets

In modern data centers, servers account for the majority of equipment and perform most of the processing work. It therefore comes as no surprise that servers also present most of the power and thermal challenges and take up the most cabinet space in the data center.

Many data center managers prefer to use narrow 600mm (24 in.) server cabinets, assuming they can maximize space by accommodating more cabinets within the square footage of the data center. Not only is this a misconception, but deploying wider cabinets such as Siemon VersaPOD cabinets that share Zero-U space between bayed cabinets is proven to reduce stranded power and provide substantial cost savings without sacrificing space.

The Smaller Cabinet Misconception

When we consider the data center as a whole, it is important to understand that the total power of the space is allocated across all cabinets housing active equipment. Accordingly, regardless of whether a data center contains a greater number of smaller cabinets or fewer larger cabinets, the overall power load remains the same. As shown in Figure 1, whether a 50kW data center row houses 10 narrow 5kW cabinets or 8 wider 6.25kW cabinets, the total allocated power remains at 50kW per row. The same holds true for colocation facilities where power is generally allocated based on customer cages—total power of the cage is allocated across the cabinets housed within that cage.

READ MORE

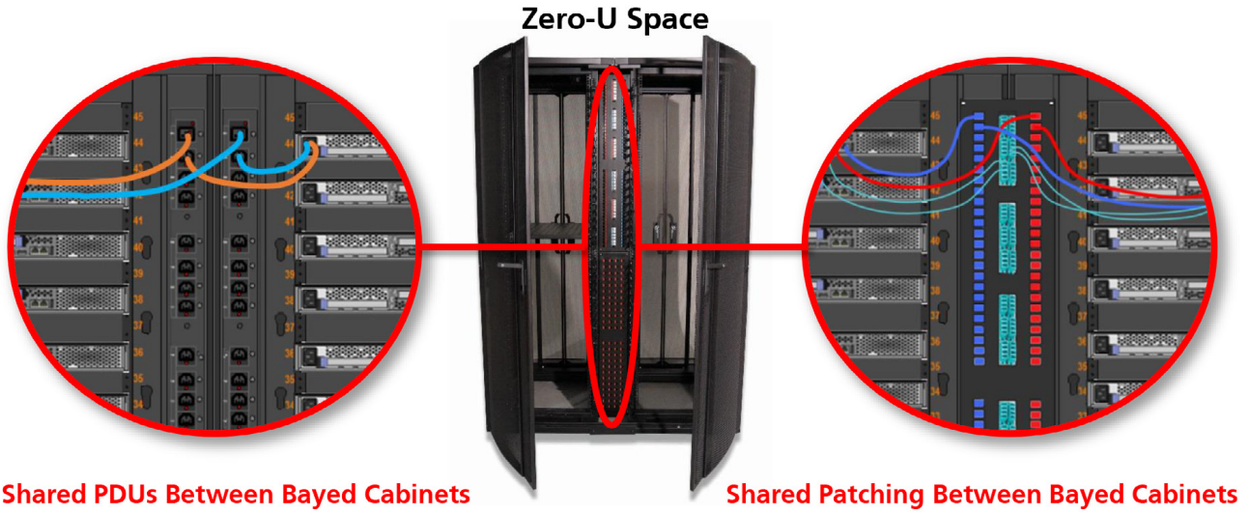
WEBINAR CATCH-UP:

SEE THE STRANDED POWER WEBINAR BY CLICKING HERE

EXPLORE

Reduce cost and unleash stranded power using shared Zero-U space with VersaPOD®

Deploying fewer Siemon VersaPOD cabinets instead of stranded 600mm server cabinets within the same footprint allocates more power per cabinet to support more servers vertically without sacrificing floor space. Compared to 600mm server cabinets, the VersaPOD's ability to share connectivity, patching and PDUs in the shared Zero-U space between bayed cabinets reduces stranded power outlets by 75% and results in 46% savings due to fewer cabinets, PDUs and patch panels and the ability to use shorter patch cords.



Shared PDUs Between Bayed Cabinets

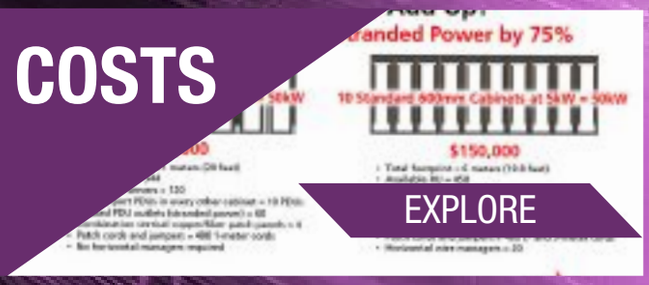
- Cuts the number of PDUs and upstream power connections in half
- Reduces stranded power outlets by up to 75%
- Improves Power Usage Effectiveness (PUE)
- Supports vertical growth with more power per cabinet

Shared Patching Between Bayed Cabinets

- Cuts the number of copper and fiber patch panels in half
- Saves 40% on patch cords by enabling shorter 1-meter connections
- Eliminates horizontal cable managers
- Frees up equipment mounting space

SEE HOW TO REDUCE COSTS

AND REDUCE STRANDED POWER OUTLETS BY UP TO 75%



EXPLORE

MainOne

West Africa's Largest Data Center Relies on High-Performance Cabling Solutions from Siemon

Large companies and organizations in Nigeria are increasingly participating in today's digital economy of the country. The availability of high performance data center facilities is therefore critical to achieving future growth and profitability.

With the opening of the Premier Tier III colocation data center, MainOne now provides infrastructure that delivers consistent high-level performance, data storage and data security to support leading businesses across West Africa. By choosing high-bandwidth cabling systems from Siemon, MainOne ensured that the most solid and future-proof cabling infrastructure foundation was laid to support the company's colocation customer base.

Described by Omobola Johnson, Nigeria's minister for communication and technology, as "a very significant addition to the ICT infrastructure of Nigeria," the MainOne Premier Tier III data center officially opened in January 2015. This 3,500 square metre, 600 rack facility located outside the capital city of Lagos is the only purpose-built, commercial data center in Nigeria and West Africa built to Uptime Institute Tier III specifications and in compliance with the TIA 942 data center standard. As the largest colocation facility in West Africa, it is poised to play a critical role in supporting the development of the country's digital economy. Offering colocation, cloud and managed services, this carrier neutral facility is interconnected with all major telecom operators and Internet service providers (ISPs) in Nigeria.

“With the creation of this state-of-the-art data center facility, we aim to provide critical infrastructure to businesses and organizations across West Africa,”
Gbenga Adegbiji, Head of Capital Projects at MainOne.

“We provide hardware and software so that these organizations don’t have to invest their own capital into their own data centers.”

MainOne is a leading provider of innovative telecommunication services and network solutions for businesses in West Africa, enabling broadband services for businesses needing critical connectivity solutions through its world class submarine cable system, a state-of-the-art IP-based next generation network, growing regional and metro terrestrial fiber optic networks and data center facilities.

MaineOne’s customer base includes major telecom operators, ISPs, government agencies, large enterprises, and financial and educational institutions.

Laying the Foundation with Best-In-Class Products

“To successfully establish a facility of this scale, it was crucial to bring together the best professionals in the trade, select top quality products and utilize the most up-to-date design methods,” explained Gbenga Adegbiji. “From cooling to power supply to IT infrastructure, we were looking for best-in-class suppliers.”

Selecting best-in-class products was also essential for achieving TIER III classification. Developed by the Uptime institute, the TIER model measures the functionality and reliably of data center infrastructure. TIER III data centers guarantee 99.98% availability, which means no more than 1.6 hours of downtime allowed per year.

READ MORE

PowerMax™

Siemon introduces new PowerMax PDU line

Siemon's PowerMax line of basic and metered PDUs offer simple, reliable power distribution to rack mounted IT equipment at an affordable price. Available in both single phase and either Delta or Wye three phase power, PowerMax PDUs feature a single input in a variety of currents and voltages with either NEMA or IEC style plugs. Multiple NEMA and IEC output options distribute reliable 120V, 208V or 230V to a wide range of rack-mounted IT equipment, ranging from 1.8kW to 7.36kW.

MOUNTING

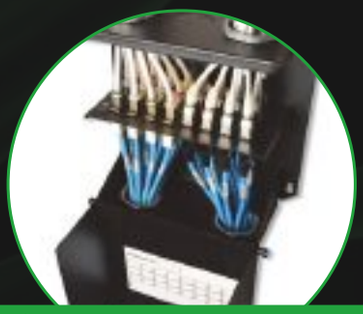
- Vertical PDUs mount via tool-less button attachments
- Horizontal PDUs mount to standard EIA 19 in. configurations

FEATURES

- NEMA and IEC plug inputs
- Single and 3-phase voltages
- Horizontal and Zero-U vertical styles
- 3m (10 ft.) cords with other lengths available
- Soldered connections for high reliabilty

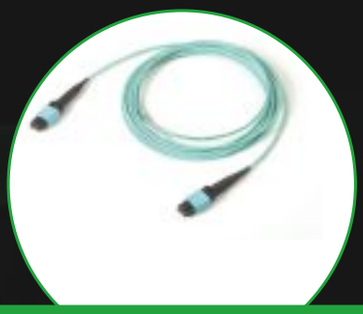
EXPLORE

Explore some of our other products below >>



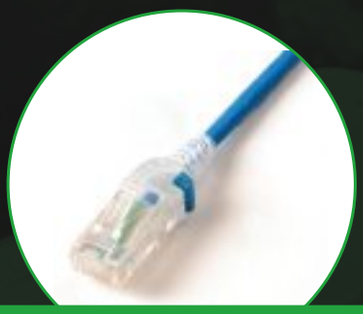
MAX®ZONE UNIT ENCLOSURE >>

The 24-Port MAX Zone Unit Enclosure is a flexible, economical solution designed to support efficient zone cabling.



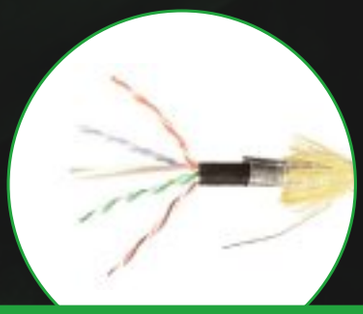
MTP JUMPERS >>

12-fiber MTP fiber jumpers with a smaller 2mm diameter cable for improved pathway fill, airflow and accessibility.



SKINNYPATCH™ >>

SkinnyPatch with a reduced cable diameter for improved airflow & increased flexibility in high-density patching areas.



CAT 6A OSP CABLE >>

Siemon category 6A F/UTP shielded outside plant (OSP) cable delivers TIA and ISO performance requirements for shielded category 6A/class EA.

RUGGEDIZED FIBER >>

Ideal for installations requiring extended distances, in close proximity to heavy sources of EMI, or where fiber active equipment is used.

PON CABLING SOLUTIONS >>

Siemon PON Cabling Solutions include fiber splitters, connectivity, cables, assemblies, cable management, enclosures and work area components.

WheelHouse™

Advanced Data Center Solutions

Siemon offers free WheelHouse® Interactive Data Center Guide

Focusing support for data center professionals, this online educational resource center provides comprehensive data center guidance for selecting, designing and deploying the business-critical infrastructure upon which the entire data center relies.

Its aim is to 'connect the world to a higher data center standard' by offering comprehensive resources in one immediately accessible and easily navigable interactive guide. WheelHouse is Siemon's complete portfolio of advanced data center solutions and in this 58 page guide, it brings together a comprehensive selection of educational tools, with free access to a library of white papers, videos and webinars, plus a shielded learning center.

DOWNLOAD FULL INTERACTIVE GUIDE

Siemon Named One of the Most Promising Data Center Solutions Providers

Selected from more than three hundred companies by a distinguished panel of CEOs, CIOs, CMOs, VCs, analysts and the CIO Review editorial board, Siemon joins the ranks of the best solution and service providers offering comprehensive data center tools and services and showcasing extensive business knowledge and innovative strategies combined with talent base across multiple locations.

As the only provider of network infrastructure solutions to make the list along with featured company Digital Realty Trust, this notable distinction is in keeping with Siemon being named one of the 20 Most Promising Cisco Solutions Providers.

READ MORE

Siemon Donation Supports Youth in FIRST® Robotics Competition

Siemon recently donated to the FIRST® Robotics Competition, a global high-school program that provides students with a real-world engineering experience. FIRST® (For Inspiration and Recognition of Science & Technology) is an international, K-12 not-for-profit founded in 1989 to inspire young people's interest and participation in science and technology.

READ MORE

EXPLORE

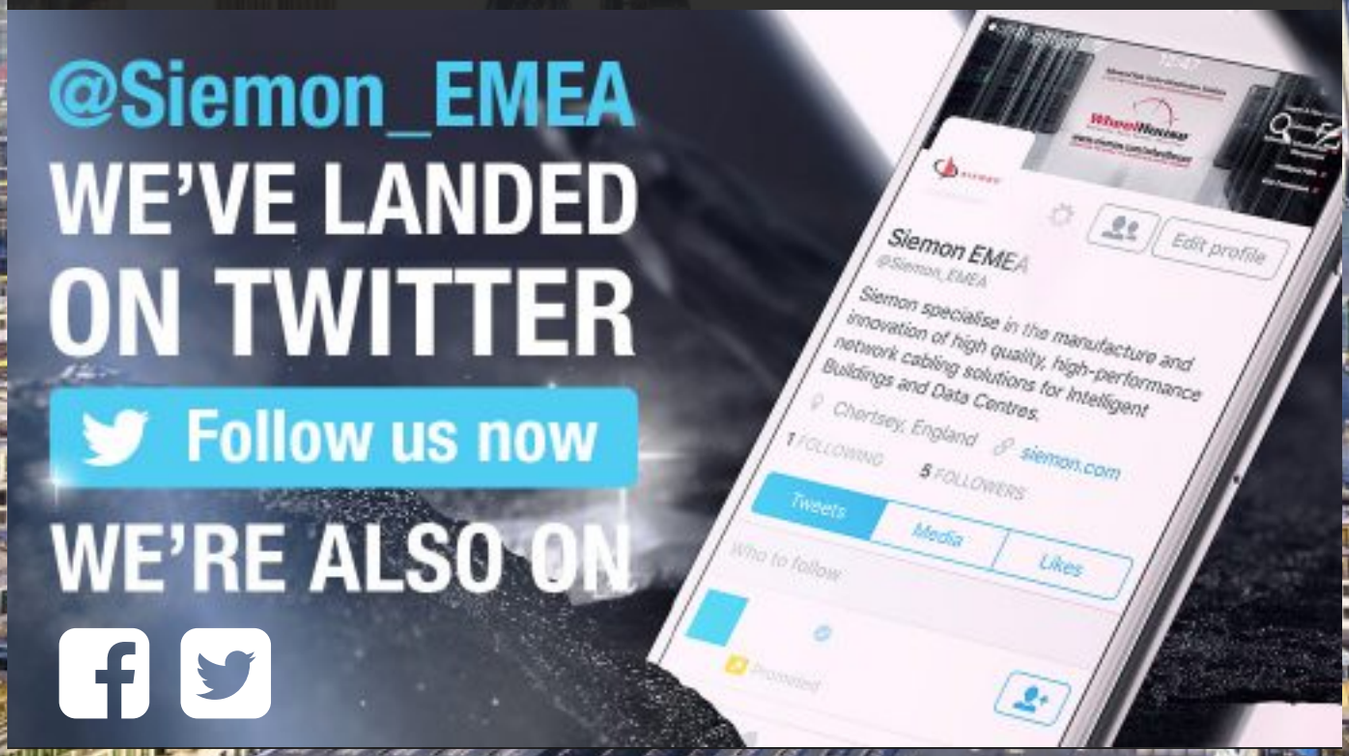
A Closer Look at 40 Gigabit Duplex Fiber Solutions

There's been a lot of talk lately surrounding bidirectional 40 Gb/s duplex applications, or BiDi for short. Currently offered as a solution by Cisco®, BiDi runs over duplex OM3 or OM4 multimode fiber using QSFP modules and wavelength division multiplexing (WDM) technology.

EXPLORE

Will 802.11ac Wireless Make Cabled Networks Obsolete?

While it sounds logical to say that first wave IEEE 802.11ac 80 MHz devices provide performance on par with structured cabling systems because they can theoretically deliver a maximum throughput of 1.3 Gb/s, there are two main reasons why this statement is inaccurate. The first is that, since wireless is a shared network, the maximum available bandwidth is actually split between multiple users.



Learn about The Edge and more at:
www.Philips.com/connectedofficelighting

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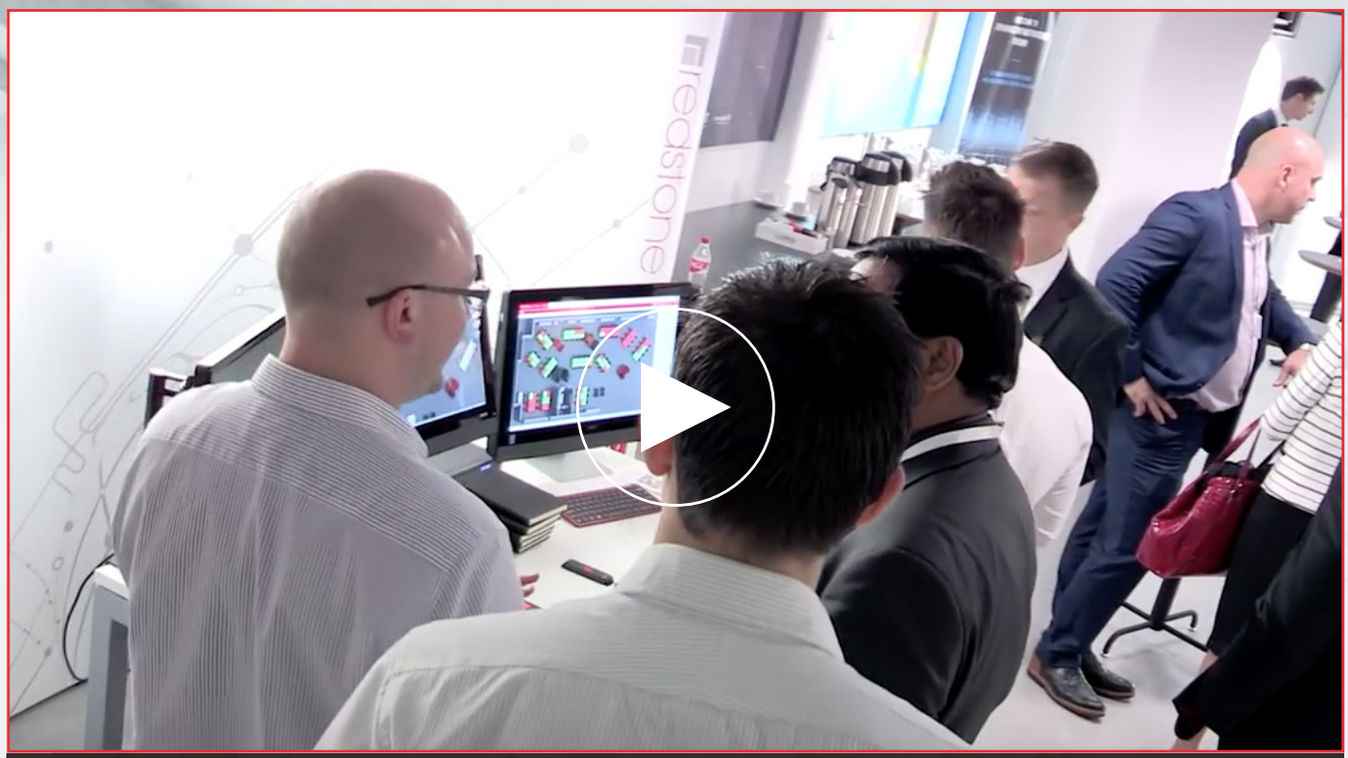


Siemon's Dynamic Infrastructure Forum examines the future of the connected world

Siemon hosted its inaugural Dynamic Infrastructure Forum, where experts from Siemon joined forces with representatives from Redstone, Philips, Cisco and the chairman of the Chartered Institution of Building Services Engineers Intelligent Buildings Group (CIBSE). The half-day event took place at the prestigious Urban Innovation Center in London - a purpose built venue designed for businesses, academics and industry leaders to develop the cities of the future.

Many top level delegates attended the Dynamic Infrastructure Forum to hear about the ideas and technologies that are making next generation buildings a reality. With an ever increasing range of Internet protocol (IP) enabled applications now available including security, VoIP, lighting, audio visual, digital signage and HVAC, the immediate challenge is to understand how best to design and implement the right solutions for organizations of all kinds.

EXPLORE

Cisco live!

Siemon demonstrates ConvergeIT™ cabling solutions for intelligent buildings at Cisco Live!

Siemon were proud participants at Cisco Live! 2016, which took place at the prestigious Messe Berlin exhibition and conference center. Cisco Live! is a week long premier education and training event for IT professionals worldwide, and Siemon took the opportunity to highlight how its innovative solutions are at the forefront of the move towards intelligent buildings and will allow enterprises to maximize the potential of the Internet of Things (IoT).

EXPLORE

Siemon participated in the II Congress of Smart Buildings in Madrid

EXPLORE

Siemon participated for the first time as a speaker at the Second Congress of Smart Buildings in Madrid. The II Congress in Smart Buildings, held in the College of Industrial Engineering at the Universidad Politécnica de Madrid (UPM), brought together around 250 professionals such as engineers, installers, system integrators, architects, developers, facility managers, Estate administrators, researchers and equipment manufacturers, among others. The Congress is a multi disciplinary event, which approaches technological, legal and economic aspects of developments in a comprehensive and transversal manner in order to promote awareness and increase the inclusion of the various solutions and systems in the building, both in the new buildings and in rehabilitation works.

WATCH: THE CONGRESS OF SMART BUILDINGS >>

Siemon Jacks Crowned King of PoE

Siemon is pleased to announce that its patented Z-MAX® and MAX® RJ-45 jacks and TERA® jacks deliver the industry's most reliable jack-plug connection for superior support of the latest PoE applications.

In an effort to improve the electrical and mechanical performance of traditional modular jacks, Siemon invented and patented a curved or "crowned" contact shape for its modular jacks. In additional to achieving the industry's highest transmission performance and eliminating the risk of permanent contact deformation due to mechanical stress, Siemon's crowned jack contacts provide superior support for remote powering applications.

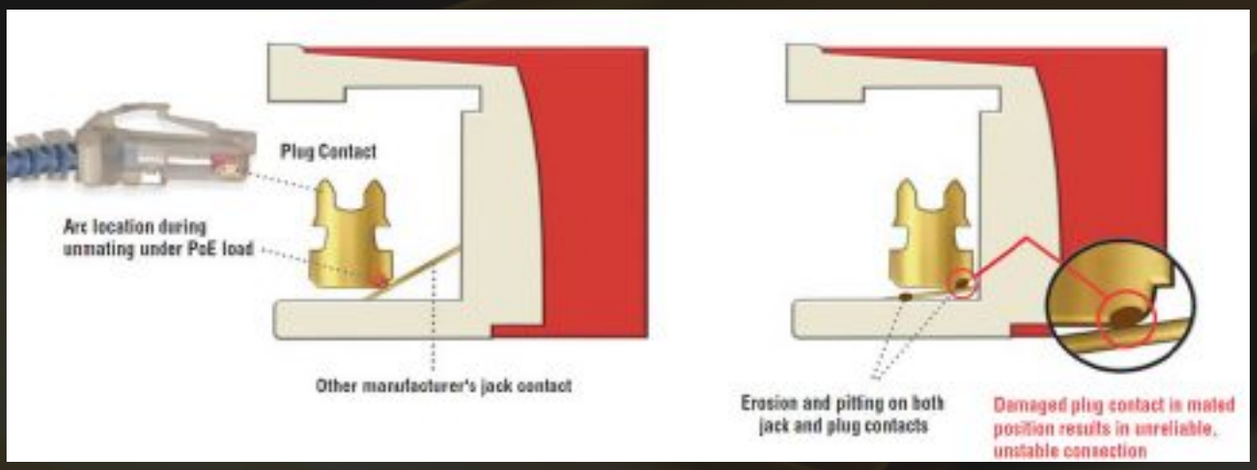
Unmating a jack-plug connection under a PoE load produces an arc that erodes the gold plated jack-plug contact surfaces at the arcing location. When this erosion occurs in the area of the fully mated position, the result is an unreliable connection that can cause degraded network performance and bit error rates. While some manufacturers have succeeded in ensuring that erosion on jack contacts is separate from the fully mated position, their contact geometry does not ensure the same for plug. Erosion on either the jack or plug contacts results in an unreliable connection.

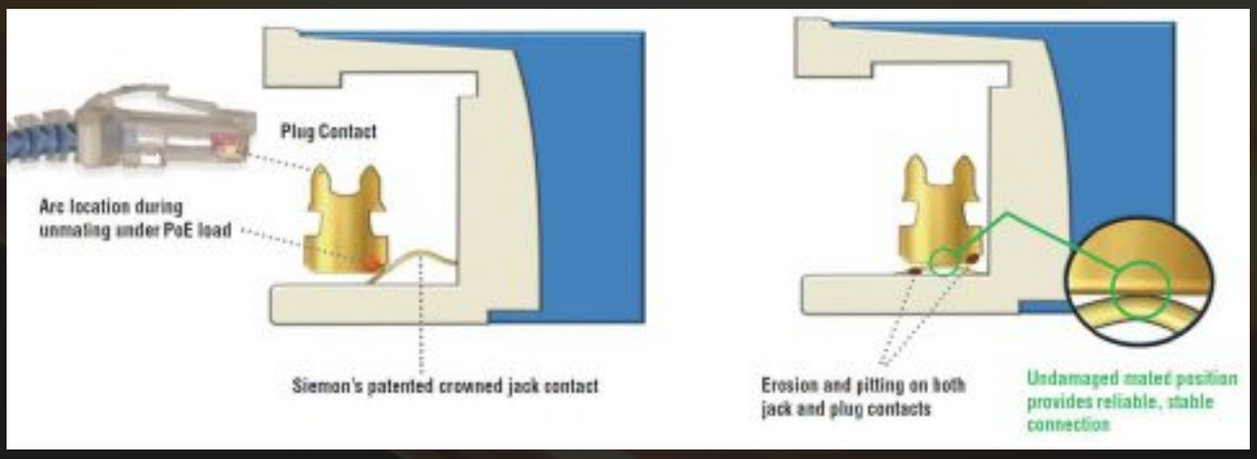
"Only Siemon's patented crowned contact geometry places arcing damage to the both the plug and jack contacts away from the fully mated position," explains John Siemon, vice president of global operations and chief technology officer for Siemon. "This allows our customers to connect and disconnect to the latest PoE applications with zero risk over the lifetime of the system -it's what makes our jacks King of PoE."

EXPLORE

The Effects of Spark Gap Erosion Caused by Unmating Under PoE Load

Contacts in network connecting hardware such as RJ-45 jacks and plugs are carefully engineered and plated (typically with gold or palladium) to ensure a reliable, low resistance mating surface. Unmating a jack-plug connection while transmitting PoE power (i.e., unmating under PoE load) produces an arc within the spark gap as the current transitions from flowing through conductive meatal to air before becoming an open circuit.





READ MORE ABOUT THE...

Effects of spark gap erosion caused by unmating under POE Load

EXPLORE

SIEMON™

SIS

Siemon Interconnect Solutions

SIS are a division of the Siemon Company dedicated to supporting OEM's, VAR's, integrators and other organizations that incorporate network connectivity into their market centric solutions.

DAC Passive Copper Cables

- SFP+
- Cisco Compatible SFP+
- QSFP+
- QSFP+ FDR
- QSFP+ to 4 SFP+

Active Optical Cables

- QSFP+ AOCs
- QSFP+ FDR AOCs

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CONNECTING THE WORLD TO A HIGHER STANDARD

WWW.SIEMON.COM/SIS