

CABLING FOR THE FUTURE

Innovate

THE SIEMON COMPANY NEWSLETTER | OCTOBER 2012

We're not going green, We already are:

**Siemon is now 179%
carbon negative globally** P02

New IIM product launch:

New Angled MapIT

G2 patch panel launched P07

Future-proof your network:

Leading helicopter engine

manufacturer opts for Siemon P14

With Siemon

being green...



**...doesn't have
to be difficult**

A green approach to
network cabling



CONNECTING THE WORLD TO A HIGHER STANDARD

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GREEN UPDATE

Siemon announces industry first by achieving global carbon negative status.

Siemon, a worldwide leader in IT network infrastructure, announced that its global operations have achieved carbon negativity. The company's carbon reductions and offsets exceed actual global emissions by over 179 per cent.

Having first attained carbon negative status in its North American operations in 2009, Siemon applied the same aggressive programme of environmental improvement initiatives to reach this impressive green benchmark across its global operations, covering sites in Europe, Asia and South America. Including the development of more energy-efficient and sustainable manufacturing processes, zero-landfill recycling, increased reliance on renewable energy sources - such as solar power - and carbon offsets based on extensive forestland conservation efforts, this comprehensive programme helped Siemon to become the first and only network cabling manufacturer to achieve this considerable and notable green milestone.

The announcement is based on an extensive audit that identified Siemon's 2011 global carbon emission sources and calculated its total carbon footprint, utilizing publicly available U.S. Environmental Protection Agency (EPA) data.

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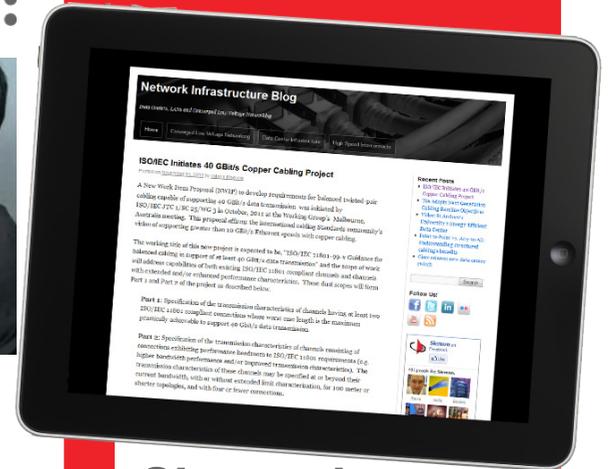


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CASE STUDY
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Siemon's Network Infrastructure Blog

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Siemon is new Endorser of European Commission Code of Conduct on Data Centres' Energy Efficiency.

Global infrastructure expert Siemon is the latest organisation to achieve Endorser status of the European Commission's Code of Conduct on Data Centres' Energy Efficiency. This voluntary code sets out to minimise the energy consumption of data centres - both new build and existing - by improving understanding of energy demand, raising awareness and recommending energy efficient best practice and targets.

With Endorser status, Siemon is expected to utilise the Code of Conduct to develop products, solutions and programmes to enable data centre owners and operators to meet expected reduction targets in energy consumption. It is also expected to help its clients develop and implement actions that will tackle power consumption inefficiencies as well as encourage their support of the Code of Conduct as signed 'Participants'.

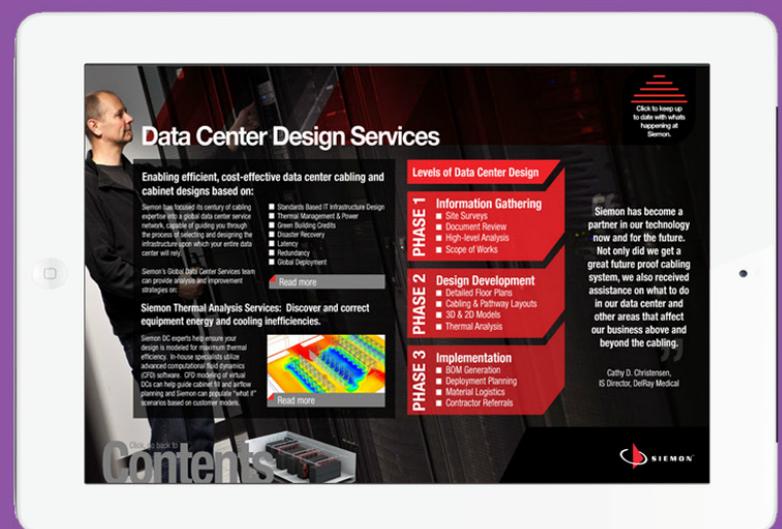
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Siemon launches Global Data Centre Ecosystem.

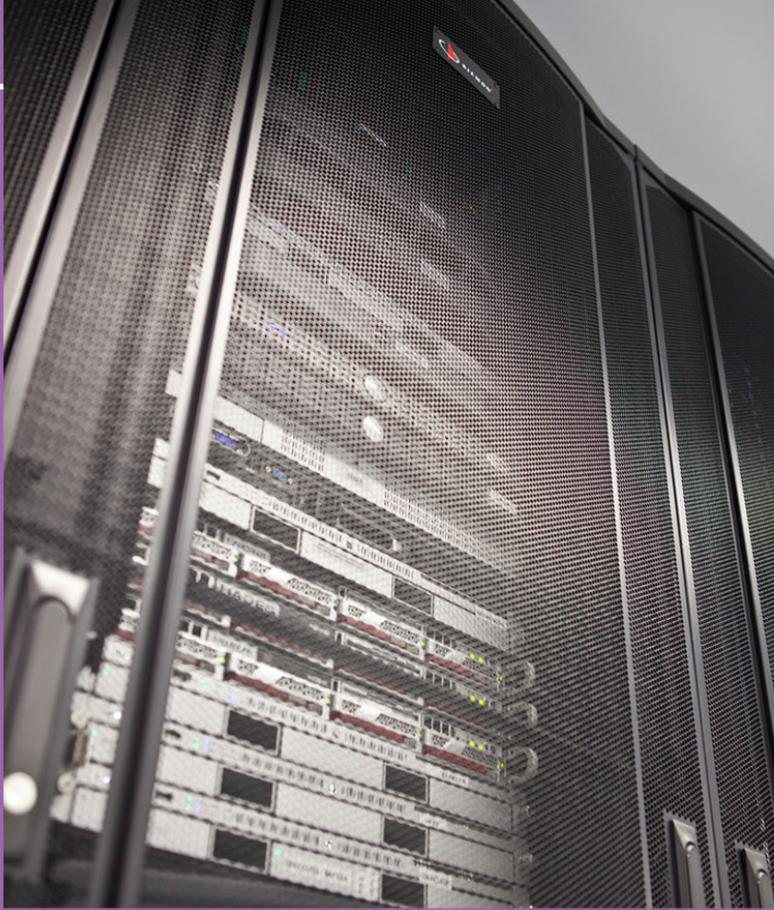
This in-depth interactive Data Centre Infrastructure Solutions guide highlights Siemon's focus on Data Centre excellence. Taking you through the Infrastructure Planning, Copper & Fibre solutions, Density, Space saving and Thermal Management that you need for your data centre. As well as sharing some great tools to support and educate you on best practices for managing your network environment.

“By working with Siemon to deliver innovative products, IBM has been able to provide clients with a flexible and efficient data center solution, closer to clients, manufacturing sites and remote operations.”

Steve Sams, IBM Vice President, Global Site and Facilities Services.



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Data Foundry Partners with Siemon for 250,000 sq ft Colocation Data Centre Infrastructure.

Texas 1 is Data Foundry's flagship, carrier-neutral, 250,000 sq ft data centre located at the 40 acre Data Ranch development in Austin, Texas. Powered by two independent substations and connected to 17+ fibre providers, Texas 1 is the most redundant, connected, secure data centre and disaster recovery solution available in Texas.

Data Foundry needed a high speed, reliable structured cabling system for this critical colocation facility. Data Foundry thoroughly researched their infrastructure options. Several competitors were brought in and each given a chance to present their solutions.

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Siemon's SFP+ Direct Attached Copper Cable Assemblies pass Interoperability Testing with multiple 10G Ethernet equipment manufacturers

Siemon's SFP+ direct attached passive copper cables have been tested by the University of New Hampshire's Interoperability Lab (UNH IOL) and passed their 10Gigabit Ethernet interoperability testing with several vendors' devices including: Brocade, Dell, Cisco, Mellanox, Arista, Arastra and F5.

The report includes seven different SFP+ devices and five Siemon cable lengths from one to seven meters long. Five different link tests were performed employing various combinations of powering up the devices under test. All cables passed interoperability testing. In addition, a Packet Error Ratio Estimation test was run to determine if any packets are lost and there were no errors.



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With Siemon
monitoring your network...



...doesn't have to be difficult

MapIT[®] G2

Next Generation Intelligent Infrastructure Management



CONNECTING THE WORLD TO A HIGHER STANDARD

www.siemon.com/uk/mapitG2

Siemon adds angled patch panels to its intelligent infrastructure management range.

Global infrastructure specialist, Siemon has announced the addition of new angled Smart Patch Panels (SPP) to its full MapIT® G2 intelligent infrastructure management (IIM) solution.

The new panels combine onboard infrastructure monitoring intelligence with an angled configuration to easily facilitate high-density patch cord routing without the need for additional rack-mount cable management.

Designed to help network and data centre professionals to manage, monitor and secure their physical IT infrastructures, the MapIT G2 system integrates a powerful combination of innovative intelligent connectivity,



user-friendly Master Control Panels and MapIT software to provide real-time tracking and reporting of network-wide physical layer activity.

Designed with a higher degree of intelligence, all MapIT G2 SPPs, including the new angled versions, feature an onboard LCD screen that provides connection status, diagnostics and dynamic label information. The LCD display provides more detailed

instructions to technicians than simple LEDs or traditional non-intelligent panels. The ability to monitor and display patching fields in real time and perform diagnostics through this onboard interface reduces troubleshooting time and speeds the completion of work orders.

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Siemon Event Success – Be a Part of it



Siemon have led the way in providing educational events. In collaboration with a hand-picked selection of partners, including IBM, Brocade, the Uptime Institute and many more, Siemon have planned and delivered seminars in locations such as Madrid, Moscow and Oman, aimed at educating delegates and arming them with high quality, practicable data centre design and converged network guidance.

So far in 2012 Siemon and their partners have delivered events in locations spanning Europe, Middle East and Africa on topics from data centre design, to intelligent buildings and next generation networking. Whether providing

advice on the design for your next data centre project or examining the need for intelligent buildings, industry leading speakers are on hand to guide you through the options and discuss the advantages and potential pitfalls.



For information on upcoming events in your country, please visit our website at ww.siemon.com and select your region from the list.

If you would like to host an event or become an event partner please contact us.



Valerie Maguire joins new IEEE Next Generation BASE-T Study Group

The IEEE Standards Association has just announced the formation of the IEEE 802.3 Next Generation BASE-T Study Group.

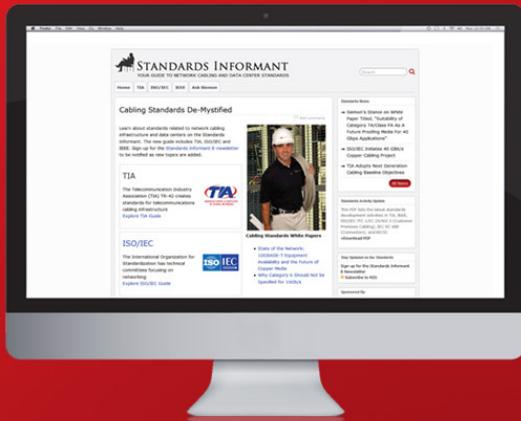


This group is designed to measure global industry interest and needs in the next generation of the IEEE 802.3 BASE-T family of technologies for Ethernet transmission over twisted-pair cabling. The group will be made up of distinguished technical professionals from the industry and infrastructure specialist Siemon, today announced that director of standards and technology, Valerie Maguire, will be joining the group.

The IEEE states that IEEE 802.3 BASE-T represents the highest-volume Ethernet port type today and is widely deployed for physical-layer connectivity in data centres. IEEE 802.3 BASE-T technologies typically utilize server-uplink data rates of Gigabit Ethernet and 10 Gigabit Ethernet today,

but platform transitions and systems innovation on all fronts are driving new networking requirements, says the standards association.

Commenting on her participation in the new, Next Generation BASE-T Study Group, Valerie Maguire enthused “The work of this group is especially exciting because, for the first time, a balanced twisted-pair Ethernet application is being created to suit the unique needs of a very specific environment; the data centre. As a result, specifications that were once considered ‘untouchable’, such as channel length and topology, are open for study and possible modification.



Standards Informant

“Developed by Siemon’s experts to help you stay up-to-date on international network cabling and data centre standards.”



[Click to visit website for more information](#)

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Virtualization is as easy as 1.

Avaya Virtual Enterprise Network Architecture (VENA)

provides everything you need to create an enterprise wide private cloud infrastructure, built on open standards. With the touch of a button, you can provision next-generation applications, easily giving your users access to the tools they need, anywhere and everywhere. Your network will be more powerful and scalable, with dramatically improved performance and reliability. To learn how Avaya can help bring your business into the collaborative age, visit avaya.com/vena.

AVAYA
The Power of We™

Siemon Selected for Membership in Avaya DevConnect Program



Network of companies creates innovative, IP-enabled unified communications applications that extend the value of multivendor networks

The Siemon Company, an expert in network cabling infrastructure, today announced it has been selected by Avaya, a global provider of business collaboration and communication solutions, for membership as a Technology Partner in the Avaya DevConnect program.

Siemon is the developer and manufacturer of a comprehensive portfolio of high performance copper and fibre cabling, cable management and data centre infrastructure solutions, designed to provide a technically advanced physical layer for IT networks. As a DevConnect Technology

Partner, Siemon will deliver solutions compatible with Avaya's networking portfolio, providing organizations with complete solutions that perform at a high standard and offer a strong return on IT investment.

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A Closer Look at Fibre Optic Cable Assemblies

Many network performance problems occurring at the physical layer are directly related to cable assembly quality.

In fact, the overall performance and reliability of a network port is only as good as the cabling to which it is connected. This is particularly true of optical fibre cable assemblies, where seemingly minute variances in tight fibre connectivity tolerances can drastically undermine cabling performance. While a percentage of assembly performance issues may be identified through field testing of installed channels, field testing is not inclusive of all potential issues. Although a critical step, field testing can provide a false sense of security. For example, a single passing

result for insertion loss does not guaranty long term reliability.

To help network infrastructure professionals understand the variables affecting the quality of fibre assemblies, Siemon has performed comprehensive benchmark testing on a representative assortment of commercially available fibre assemblies. The study included generic fibre jumpers purchased through on-line retailers that were produced by both domestic (US) and offshore assembly houses as well as assemblies from Siemon and other globally known brands -

all purchased through authorized distributors. This benchmark testing provides a detailed review of mechanical and optical characteristics that are critical to the performance and longevity of these connections.

Testing was performed on 36 random samples of duplex LC laser optimized multimode OM3 50/125 fibre jumpers from 9 suppliers – Siemon, 4 other leading global manufacturers and 4 generic assembly houses. We tested each assembly to Siemon Internal specifications as well as TIA and IEC standards for end face

geometry, optical performance, cleanliness and mechanical reliability. Every Siemon XGLO and LightSystem product is 100% tested and inspected for end face geometry, cleanliness, surface defects, insertion loss and return loss (both directions and both wavelengths). Each jumper is serialized and traceable to factory test results for insertion loss and return loss.

Optical Performance

Insertion loss and return loss performance are fundamental parameters used to assess the compatibility of optical fibre links and channels with the specific networking applications they support. Insertion loss is commonly used as the basis for acceptance testing of installed links and channels. Although return loss testing of installed cabling is not required by industry standards, it is a normative requirement for fibre connectors and assemblies. Return loss is critical to optical performance of links and channels because reflected optical signals can interfere with detectors on both the forward and rearward directions.

These reflections degrade signal to noise ratio and are commonly presented using “eye diagrams”, with higher return loss resulting in a smaller eye opening

(height, peak to peak). Likewise, testing in both directions and at both wavelengths will detect abnormalities that degrade optical performance of cabling channels.

Table 1: Insertion Loss and Return Loss Test Results:

Insertion Loss - 1 out of 9 manufacturers had 1 or more failures.

Return Loss - 3 out of 9 manufacturers had 1 or more failures.

Manufacturer	Industry Standard ISO/IEC 11801 Ed. 2.2; TIA/EIA 568C.3		Siemon Specification	
	IL (.75 dB)	RL (20dB)	IL (.25 dB)	RL (30dB)
Siemon	Pass	Pass	Pass	Pass
1-Global MFG	Pass	Pass	Pass	Pass
2-Global MFG	Pass	Pass	Pass	Pass
3-Global MFG	Pass	Pass	Pass	Pass
4-Global MFG	Pass	Pass	Pass	Pass
5-Generic	Pass	Fail	Pass	Fail
6-Generic	Pass	Pass	Pass	Pass
7-Generic	Pass	Fail	Pass	Fail
8-Generic	Pass	Fail	Fail	Fail

Insertion Loss is typically the only field measurement, but not the only parameter that can affect network performance and reliability. Control of end face geometry, cleanliness, surface defects and mechanical integrity should all be considered to ensure long-term reliability.

End Face Geometry

Overall performance of the fibre optic connectivity depends on the mechanical characteristics that control alignment and physical contact of the fibre cores. End face geometry is an essential characteristic of repeatable and reliable optical fibre connections.

“Are the savings from using substandard fibre jumpers worth putting critical network performance and reliability at risk?”

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CASE STUDY

Sky High Performance

Headquartered in Bordes, France and part of the Safran group, Turbomeca is a leader in civil and parapublic helicopters, offering the broadest range of helicopter engines worldwide.

What do helicopters and cable have in common? Nothing?

On one level that's true, but they both have to perform faultlessly for smooth operation that you can rely on. So, when world-leading French helicopter engine manufacturer Turbomeca equipped its new manufacturing plant near Paris, it had sky high expectations for the cabling infrastructure that would underpin its business operation.

With operations on five continents, the company has built strong relationships with the world's leading helicopter manufacturers including Eurocopter and Sikorsky.

Until recently, engine design, development and production was centred in Bordes, Tarnos and the company's original site in Mézières sur Seine which has

already served for more than 70 years of continuous production. However, continuous business growth pushed Turbomeca's production to capacity. With no room for further expansion and plans to implement manufacturing synergies with other parts of the Safran group, additional space was imperative. The decision to build a new manufacturing plant became essential and so a search was mounted for a suitable location, ultimately leading Turbomeca to Mantes-Buchelay near Paris; a greenfield site only 14km from the original plant which identified as best for the 12,400sqm build.

Turbomeca's New Base Mantes-Buchelay was to become Turbomeca's hub for high precision mechanics activities, housing the design,

manufacture and assembly of hydromechanical components and accessories for oil and fuel systems for helicopter engines, as well as the manufacture of hydromechanical components for military aircraft engines. As the new industrial competence centre, implementing industrial synergies between Safran Group companies, the site needed to be able to accommodate further growth and provide capacity for business expansion.

The new plant had to be built with the future in mind and this meant an IT infrastructure that would support a 320-strong workforce in administration and production, with scope to deliver for more staff in the years to come.

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“We are confident that our vision of a world-class, future-proof manufacturing site has been realised and we know that this investment in the highest performing copper cabling system will support the business to excel well into the future.”

Selim Caluwaerts, IT Manager at Turbomeca

Contractor Pitstop:

Siemon's latest update, highlighting more of our wide range of commodity products, suitable for your everyday project needs.

This contractor pitstop focuses on some of our great products from our Copper and Tools & Testers product families.

Siemon's commodity products complement our entire product range, increasing your choice when it comes to cabling and containment decisions.

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CONTRACTOR PITSTOP

Siemon LockIT™ Secure Connectivity System

- Secures RJ-45 and LC Fibre Ports
- Protects Against Port Damage
- Port Identification
- Lockable Copper Patch Cords
- Universal



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CONTRACTOR PITSTOP

Siemon Category 6 Outlets

- Aggressive Contractor Pricing
- Familiar, Installer-Friendly Termination
- Fast, Simple Conductor Lacing
- Low Profile for Space Challenged Installs
- Multiple Options



[Learn More](#)

CONTRACTOR PITSTOP

Siemon S110® Connecting Block System

- Siemon's US-Made Quality
- Competitive Contractor Pricing
- Versatility for Multiple Applications
- Easy, Exclusive Cable Management Features
- Full Line of Blocks, Cords, Cable Managers and More



[Learn More](#)

CONTRACTOR PITSTOP

Siemon STM-8 Cable Tester

- Versatile - Easily identify multiple fault conditions
- Simple - Single button test mode selection
- Efficient - One person, multi-channel operation
- Flexible - Test 2, 4, 6 and 8 position jacks



[Learn More](#)



MapIT[®] G2 System

Next-Generation Intelligent Infrastructure Solution for Physical Layer Network Management.

MapIT G2 integrates a powerful combination of innovative Smart Patch Panels, user-friendly Master Control Panels and MapIT G2 IM or PLM software to provide real-time tracking and reporting of network-wide physical layer activity. This benchmark IIM system offers truly unparalleled ability to manage a complex network.

MapIT G2 was developed specifically to eliminate the related complexity of IIM. By bringing intelligence directly to the patch panel and fibre enclosure, systems are deployed and function faster.

Manage

- Reduce Downtime
- Better Manage Remote Sites
- Streamline Work Order Process

Monitor

- Detailed Network Views
- Database Accuracy
- Maximizes Utilization of Networking Assets

Protect

- Real-Time Alerts
- Regulatory Compliance
- Improve Response Time

MapIT[®] G2 IM or PLM Software

MapIT G2 IM or PLM software provides the critical central interface for the entire MapIT G2 system.

These server based software options collect, monitor and store network intelligence data from G2 smart panels and connectivity, delivering this information in a robust and user friendly set of network management features.

MapIT G2 software extends network resources, providing the same level of control to both centralized and remote sites from a single management point.



[Download Siemon MapIT G2 Solutions Brochure](#)



Have you seen the light?

Industry leading Fibre Plug and Play solutions from Siemon with performance margins up to 60%

Fibre has become the media of choice in the Data Centre.

Now is the time to consider whether your current fibre optic network is providing the performance and value that your Data Centre so critically needs.

To learn more visit
www.siemon.com/plug-and-play



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