

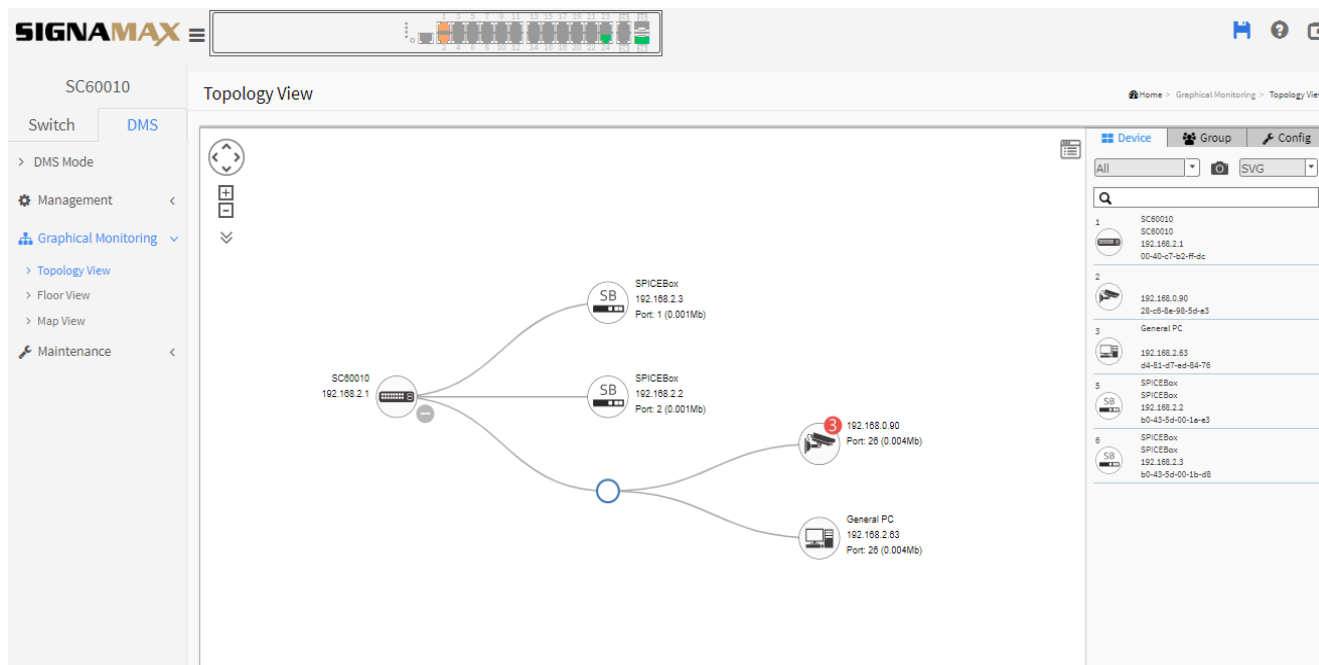
Signamax and NuLEDs join forces to provide a best in class complete PoE Lighting solution.

Power over Ethernet (PoE) lighting is at the core of the Digital Building revolution. PoE lighting combines technological advances in low voltage (DC) LED lighting with technological advances in PoE IP networking. The intersection of these advances creates an exciting Internet of Things component and could provide significant cost savings and unforeseen benefits to the way we work and live.

Network-powered lighting systems can be the arterial foundation for a digital building's converged IP-based network. This single network brings together lighting, Internet of Things (IoT) devices, sensors, building automation, and analytic. In the same way that VoIP drove exciting changes to enterprise telecommunications networks, PoE lighting can be the defining platform that enables new capabilities.

In a connected PoE system, each light links to the building's Lighting-over-IP network. This system can drive new ways to interact with people and places, sense the environment, gather and share data and provide a more productive and enjoyable working environment. Light level and color can be optimized and customized to improve mental focus, increase creativity and learning or promote collaboration dependent on the required task and individuals.

PoE Lighting installations offer a lower Total Cost of Ownership compared to traditional electrical lighting systems. Because PoE Lighting uses datacom infrastructure, installation is easier, faster and less expensive. PoE Lighting also offers lower operating costs since it uses DC power and therefore has higher power transfer efficiency and the network intelligence can drive further cost savings by automatically turning off or reducing light levels based on data collected from the connected sensors.



NuLEDs' SPICEbox is the PoE Control Module that delivers the power and management capabilities to the LED fixtures. SPICEboxes have multi-channel control for separate lighting loads, including color mixing and can serve as a sensor host for wall switches, PIR sensors, and ambient light sensors.

The SPICEbox is powered by the Signamax C-600 Series switch through CAT5e or CAT6 cables and provides up to 60 Watts of 12-48VDC power to lighting fixtures, power shades and curtains over 2 or 4 wire connections and supports both constant current as well as constant voltage loads. This makes the deployment of LED fixtures in a new installation or retrofit situation extremely flexible and adaptable.

Lighting environments can be managed and adjusted by integrated room sensors or through management software that provides the ability to change colors, brightness and color temperature from any PC, mobile device or via triggered event.

The Signamax C-600 series of fully managed PoE++ switches are specifically designed for PoE lighting installations with dual hot swappable power supplies capable of delivering up to 90W per port with a 1640W total PoE budget.

The C-600 Series switches have full Layer 2 capabilities with enhanced access security, ACLs, traffic prioritization, and IPv6 support. Static IP routing and a DHCP Server allow complete flexibility from isolated lighting networks where the C-600 Series switches allocate and provide the SPICEboxes with IP addresses to integrated networks where the lighting network needs the ability to route with the existing data IP network.

The C-600 Series switches have the traditional Signamax simplified management via an intuitive web based GUI as well as a built in Device Management System (DMS) that allows viewing the entire network, including the SPICEboxes, in topology, on a floor plan or on Google maps. The DMS provides one-click diagnostics, monitoring and device reset. NuLEDs integration provides automatic detection and classification of SPICEboxes for seamless deployment.