

## 8-Port Gigabit Ethernet Switch

# XES-8G

Non-blocking layer 2 1000BASE-T (IEEE 802.3ab) Ethernet switch, optimized for Art-Net, sACN and Dante

- Optimized for Art-Net, sACN and Dante
- Four queue DiffServ (differentiated services) for optimal quality of service (QoS) with the Dante protocol
- No broadcast bandwidth limitation
- Two universal power supplies (redundant PSU)
- Neutrik powerCON inputs and outputs for primary and backup power supply unit
- Neutrik etherCON sockets for network connection
- Rack mountable, 1 height unit



Its ease of use makes the XES-8G a perfect fit for smaller and midrange productions with demanding requirements. With the growing popularity of TCP/IP and Ethernet based protocols for lighting and sound, it is expected that more and more network capacity will be required for those applications in the upcoming years. The XES-8G provides enough bandwidth for controlling the light of almost any show and it can handle the data rates required for transmitting many audio channels or even those needed for displaying high resolution motion pictures on LED walls.

As a layer 2 switch, the XES-8G is generally unaware of the application and therefore it works well with any protocol that operates on top of TCP/IP and with many Ethernet<sup>1)</sup> based protocols. However, special precautions have been taken to ensure that the XES-8G works perfectly with Art-Net, sACN and Dante. The Art-Net specification for example expects the controller to only send data every few seconds or when an update is available. A typical switch might put itself into sleep mode when no traffic is observed, not so the XES-8G; it stays ready to forward data anytime without a delay.

With the increased acceptance of TCP/IP and Ethernet based protocols, the proper operation of the network and its equipment has become critical for many shows. In stage lighting for example, more often than not, all of the control data transmitted from a light controller will be passed through at least one switch, before it reaches any actual fixture. Therefore, it is crucial to professionally plan, configure and install the network for any show or venue. As a measure to further lower the chances of network outages, the XES-8G comes equipped with two separate switch mode PSUs that can be powered from two different mains supplies.

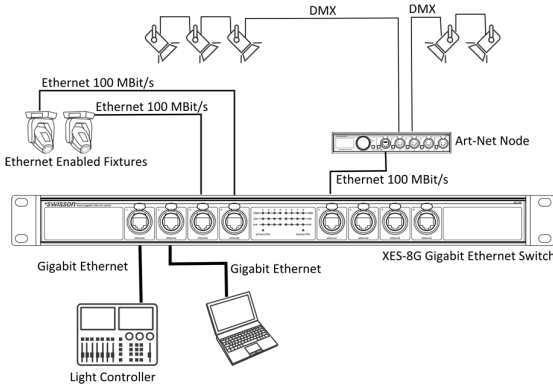
### Fields of Application

- Architectural lighting
- Convention centers
- Churches
- Schools
- Theme parks
- Theaters, operas
- Multimedia shows
- Touring / Festivals

## Applications

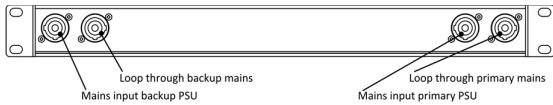
- Extend a network (add network participants)
- Build star topologies
- Increase the reachable distance of a network (use as a “repeater”)

## Typical Application



## Backup Power Supply

The XES-8G has two separate powerCON inputs and two separate powerCON outputs on its rear; each input is connected to an independent PSU. In normal operation, the XES-8G will be powered from the primary PSU. When the primary PSU fails, the backup PSU automatically takes over.



## Ordering Information

**XES-8G** **10 42 18**  
8-port gigabit Ethernet switch

## Specification

Weight.....ca. 1100 g /  
2.43 lb.

Ambient temperature .....-30 – 55°C /  
-22 – 131°F

Typical power consumption .....ca. 6 W

AC power input.....100-240 V AC

Ethernet (all ports) .....1000BASE-T  
(IEEE 802.3ab)  
and 100BASE-TX/10BASE-T,  
auto negotiating, auto MDI-X

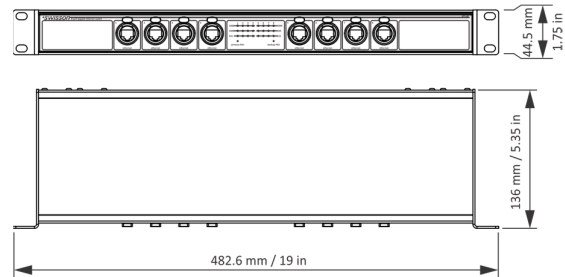
Ethernet ports.....8

Ethernet switch type .....Non-blocking  
layer 2 Ethernet  
switch

Address look-up engine.....4000 entries

Art-Net / sACN capacity.....>1000 simulta-  
neous uni-  
verses<sup>2)</sup>

Dante capacity .....up to 128 chan-  
nels per direc-  
tion at 48 kHz<sup>2)</sup>



<sup>1)</sup> As a layer 2 switch, the XES-8G works with all protocols that operate on top of the Ethernet protocol. However, there are some protocols which are based on the lower layers of Ethernet but are not fully Ethernet compliant. Such protocols may not work with Ethernet switches. Examples of such protocols are: AES50, SuperMAC, HyperMAC and Aviom A-Net.

<sup>2)</sup> Estimate, assuming that the full bandwidth is available to this application.

