

dmXLAN switch8LX

Programmable Fast Ethernet switch

By ELC lighting bv



The dmXLAN switch8LX is an intelligent Ethernet network switch for 10/100 MBit applications. It features 8 programmable network ports, and programmable static multicast routing. The network switch is to be used when needed to connect more than 2 Ethernet devices. Each CAT5 port has a Neutrik Ethercon connector and can be connected to a different network device, with up to 100m (300ft) of cable in between. A network device can be a computer (laptop), WiFi access point (router), lighting console with Ethernet connection, DMX/Ethernet node, network audio device, ..., or a next Ethernet switch to expand the system.



The switch8LX is available in 4 options

- 8x CAT5 ethernet ports on Neutrik Ethercon
- 6x CAT5 ethernet ports on Neutrik Ethercon, and 2x Fibre optic 100MBit ports (ports 1 & 2) on SC connector
- 8x CAT5 ethernet ports on Neutrik Ethercon, with Power Over Ethernet on ports 3 to 8.
- 6x CAT5 ethernet ports on Neutrik Ethercon, and 2x Fibre optic 100MBit ports (ports 1 & 2) on SC connector, with Power Over Ethernet on ports 3 to 8

On the front panel there are 11 LED's

8x yellow Port indicators. (off→no connection, on→valid connection, blink→receiving data)
 1x yellow CPU (blinking→CPU active) 1x red Allert (loop failure) 1x green Power On

Port programmability options

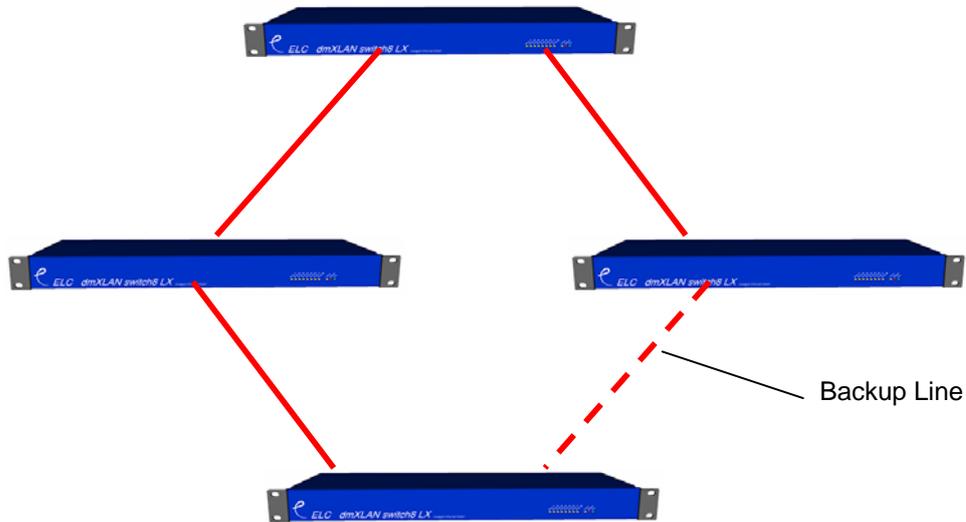
Each of the 8 ports can be programmed to the following functions. The Programming of the ports can be done with the free dmXLAN software available at www.elclighting.com

Disabled, the port will do nothing.

Normal, the port will act as network connection and will pass thru all the data.

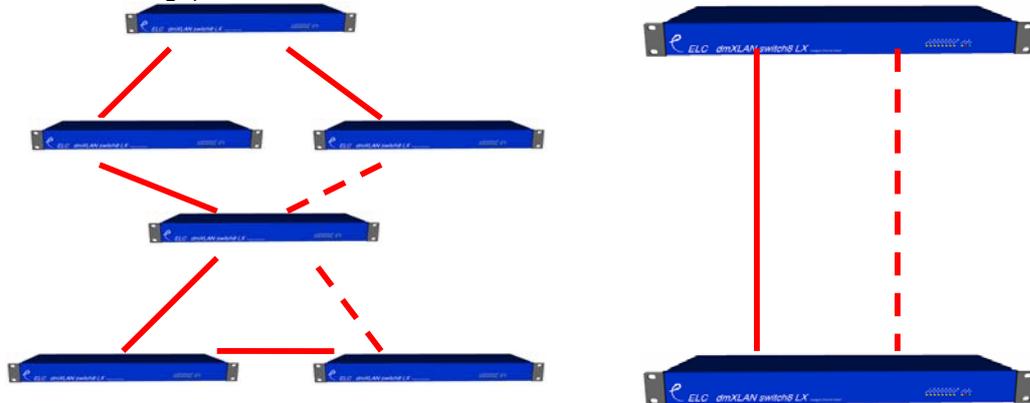
Loop

Loop ports are always programmed in pairs (port 1&2, 3&4, 5&6 or 7&8). The loop function is able to provide a backup link in case of a cable failure.



When using standard Ethernet switches, a loop of switches will bring the network down. With the switch8LX ports programmed to loop, the "Backup Line" is detected and automatically disabled. If then during operation (the show) one of the working lines gets broken (or disconnected) all the switch8LX's will then reroute the signal using the backup line, this within 30 to 50 mSec.

A setup with 2 loops and the smallest setup possible (example 1 switch at the FrontOfHouse and one at the stage)



On the front panel there is a red LED called Allert, this will be on if a loop is broken.

Filtered

A very special feature of the switch8LX is the ability to analyze and filter network data. The port can be programmed with an artnet-filter and can block MAnet. Other multicast protocol filter options are available thru the static multicast routing.

Examples of using port filtering.

- Wireless lan link for DMX over Ethernet using artnet.

When using a wireless lan link in a system that contains multiple artnet DMX universes, the use of a wireless link can be troublesome. The problem is that the network will try to put all of the artnet DMX universes onto the wireless link. The wireless link is always a low bandwidth connection. Even though there are fast WiFi units available, a long range WiFi link is more stable at a low speed. The filtered switch port can be programmed to only pass thru the required artnet universes for the wireless link, while the rest of the network can run at full speed.

- MA-net PocketPC remote.

Using a WiFi link in an MA-lighting network can give problems in system as MA is using very strict timing for there network connections. This make the use of the PocketPC as a MA console remote troublesome. The solution is to program the switch port, that has the WiFi access point or router connected, a filtered one. You'll need to enable the artnet filter (without passing thru any artnet universe) and to enable the MA-net block. The MA-net block will prevent any non PocketPC remote related data to be sent onto the WiFi link.

Factory default settings

Port 1&2 are programmed in Loop (ports work as normal is loop functions is not used)

Port 3 thru 8 are normal ports.

IP address 2.20.x.x (all switches have there own default IP address)

Netmask 255.0.0.0

Returning to factory default settings.

There is a small button between Port 2 and Port 3 on the back of the switch8LX. To reset the unit to it's factory default, press and hold the button for about 10 seconds until the LED's at the front will blink.

Technical Specifications:

Power: 85-264 VAC 47-440 Hz 10VA max

Dimensions 19" 1HE rack unit 483 x 44 x 150 mm

Weight 2kg