E1.31 (sACN) to DMX Interface

http://www.xzlgroup.com/e1.31todmx.pdf

Multicast Format

Input: E1.31 (Streaming-ACN) Protocol over Ethernet

Output: 4 DMX universes

Product Brief

(1) E1.31 (sACN) to DMX Interface/Bridge, output up to 4 DMX universes.

(2) E1.31 to DMX over Ethernet in Mutilcast format, configurable via web browser.

(3) More E1.31 to DMX Interfaces with different DMX universe number assigned can be used via a network (LAN) connection to achieve more DMX universes output.

(4) Compatible with **any** software package that supports the **E1.31 (sACN) protocol output**. For example, below software supports E1.31 protocol output and works with the E1.31 to DMX Interface. For software output setup, just select the E1.31 / sACN / ACN output type, no need for driver installation.

(1) Madrix	http://www.madrix.com/
(2) MagicQ	https://secure.chamsys.co.uk/magicq
(3) Luminair	http://synthe-fx.com/products/luminair
(4) LSP: Light Show Pro	http://lightshowpro.com/
(5) Vixen	http://www.vixenlights.com/
(6) Lightjams	http://www.lightjams.com/
(7) LOR: Light-O-Rama	http://www.lightorama.com/
(8) LightFactory	http://www.lightfactory.net/
(9) Nutcracker (xlights)	http://nutcracker123.com/nutcracker/releases/
(10) Jinx	http://www.live-leds.de/
(11) QLC (Q Light Controller+)	http://www.qlcplus.org/
(12) Martin M-PC	http://www.martinpro.com/controllersupport/m_series_software.html
(13) OLA	https://www.openlighting.org/ola/
(14) grandMA dot2 onPC	http://www.malighting.com/

(5) Size: L11.5cm x W9cm x H4 cm ; Package Size: 16x16x6cm ; G.W.: 370g

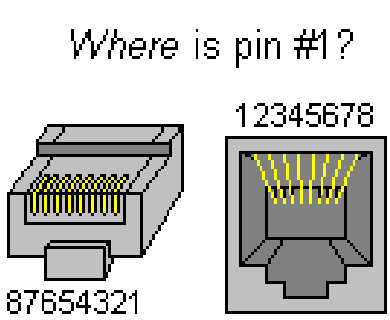
Accessories:
(1) DC Regulated 5V Power Supply -- 1 pc
(2) One meter length CAT5 ethernet cable -- 1 pc
(3) RJ45 to DMX (XLR-3pin) connector-- 4 pcs

RJ45 Output Connector Pinouts

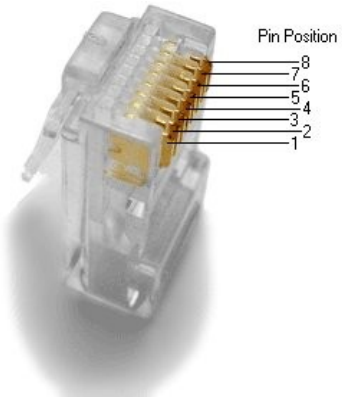
RJ45 Jack-pin OUT

Pin 1	Data +	DMX 3
Pin 2	Data -	DMX 2
Pin 3	NC	NC
Pin 4	NC	NC
Pin 5	NC	NC
Pin 6	NC	NC
Pin 7	Ground	DMX 1
Pin 8	NC	NC

Pin 1 at RJ45 Jack



Pin 1 at RJ45 plug/cable



ETHERNET
RJ45 INPUT
Multicast Format
E1.31 (sACN)
to
DMX Interface
INITIAL IP
192.168.1.206
IP CHANGED BY USER
DMX
WEB
MODE
RESET
UNIVERSE 1
UNIVERSE 2
UNIVERSE 3
UNIVERSE 4
DC 5V

E1.31 INPUT

5 Steps Quick Start Guide

Step	(1)	Check your package parcel and you will find one E1.31 to DMX Interface, one DC5V power supply, one RJ45 male to male CAT5 cable and 4 RJ45 to DMX output connectors.
Step	(2)	Connect the CAT5 cable between your computer's RJ45 Jack (ethernet port) and the interface's input port.
Step	(3)	Connect your DMX fixtures to the interface's output port.
Step	(4)	Connect the DC5V power supply with the interface. At initial power up, the 'DMX' LED indicator will flash 2 flashes and the 'WEB' LED indicator will turn on.
Step	(5)	Open your software application and select the E1.31 , sACN or ACN output type. And the E1.31 to DMX is ready for use. Now you can play with your software and enjoy the interface!

The as-shipped default value of the interface is as below and can be changed / configured via a web browser by the configuration commands.

Default IP: 192.168.1.206

Default output DMX universe No.: RJ45 Jack 1 = Output DMX Universe 1
RJ45 Jack 2 = Output DMX Universe 2
RJ45 Jack 3 = Output DMX Universe 3
RJ45 Jack 4 = Output DMX Universe 4

P.S.: You can assign any universe number to any output RJ45 port via configuration web page, such as Universe 123 to RJ45 port 1, Universe 666 to RJ45 port 2, …

If you think above default value is good enough for your control system, that's it and here you go and play!

How to open the Configuration Web Page

If you have powered up the interface and have connected the interface directly to your computer's RJ45 Jack, and you need to open the configuration web page immediately, pls follow below steps:

(1) Push the **RESET** button to restart the interface, then push and hold the **MODE** button, after a few seconds, you will see both 'WEB' & 'DMX' LED indicators flash together at a rate of one flash per second. **After 3 flashes**, release the **MODE** button!

(2) After a few seconds, the 'DMX' LED indicator will flash 7 times and then the 'WEB' LED Indicator will turn on.

(3) Then go to your web browser and type the interface's temporary IP 169.254.74.73 at address bar and click ENTER key, you will bring up the configuration web page.

Note: In some cases after you enter the IP 169.254.74.73 at your browser's address bar and click ENTER, but the page fails to open. you just need to wait for 30 seconds to 1 minute and then refresh the page.
The configuration page will come out eventually after you refresh one or two times.

Sometimes you just need to be patient and wait a little while for the configuration page to load.

Note: The web page server doesn't operate continuously because the E1.31 to DMX Interface Bridge is only capable of 4 simultaneous internet connections.

So, although the first 3 connections can be dedicated to receiving DMX dimmer data full-time, the last connection has to be shared between receiving E1.31 to DMX and running the web server.

You can connect the E1.31 to DMX Interface to a LAN router/switch or directly to a PC.

To access the web page via the E1.31 to DMX Interface's static IP, it is necessary to put your router/PC and the E1.31 to DMX Interface on the same SUBNET, GATEWAY and DNS of your network.
The default as-shipped IP configuration of the E1.31 to DMX Interface is as below.

STATIC IP: 192.168.001.206
SUBNET: 255.255.255.000
GATEWAY: 192.168.001.001
DNS: 192.168.001.001

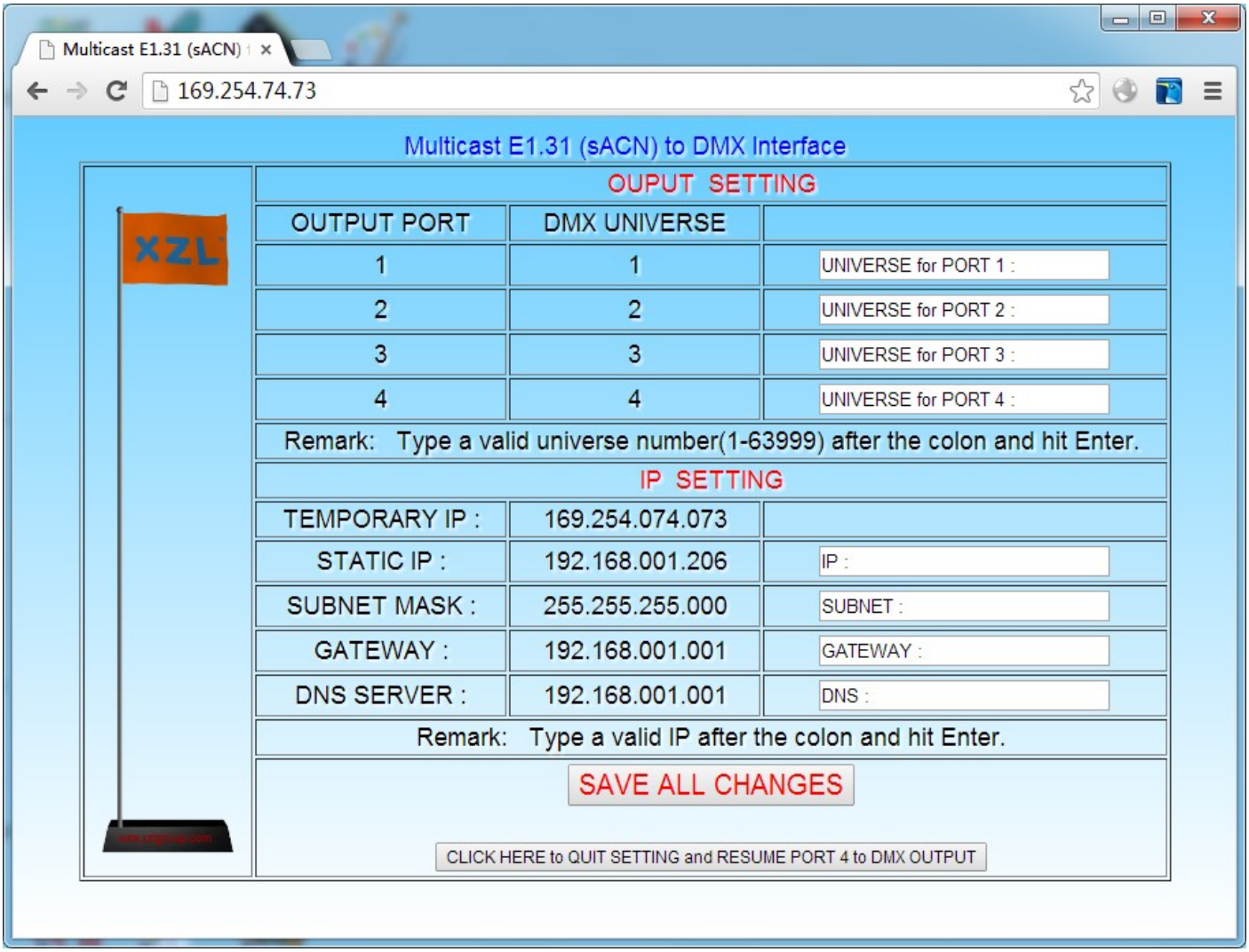
The Interface works in Multicast Format, which means IP setting is not a must.

The unit's IP is only for Configuration web page opening via router/switch, but you can always open the Configuration web page by connecting the unit directly to your computer via temporary IP: 169.254.74.73

We always recommend you to configure the interface with the unit connecting to your computer directly.

Configuration Web Page

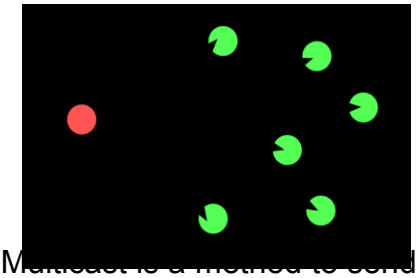
Note: You will not be able to access the E1.31 to DMX configuration web page interface with your browser if the 'WEB' LED indicator is off.



Note: Remember to click ENTER in your keyboard for each input as confirmation.

Note: Remember to click **SAVE ALL CHANGES** before you close/leave the web page.

Appendix 1



Multicast Format

http://en.wikipedia.org/wiki/IP_multicast

Multicast is a method to send data across a network where a sender, typically a PC, broadcasts the data to all devices connected to the network subnet.
And the information about the channels are sent to all controllers connected to the network and every other device on the network.
Multicast is a point to multipoint broadcast where the controllers need to listen to and only respond to information they are configured to use.
Your PC sequencing software or streaming tool sends multicast packets with an address of 239.255.<UHB>.<ULB> where UHB is the Universe high byte and LHB is the Universe low byte.
As an example, the address for universe '1' would be 239.255.0.1. This is why using multicast addressing can be simpler to configure since this address is always the same for any device using that universe.
With Multicast you must have a unique IP address for each controller/interface so that you can access its webpage that allows configuration.
In Multicast system the data is received on multicast IP address not on the configuration IP address.

Appendix 2

It is common to use a single ethernet cable to connect the E1.31 to DMX Inteface directly to a PC without other networking gear.
To connect directly, it is necessary to put the PC and the E1.31 on the same IP subnet,
ie: that they both have an address that has the same first three IP address settings like:
192.168.1.x or 192.168.0.x By default many of the E1.31 devices come with a default address of 192.168.1.206.
How to set the IP address in a PC:
Windows XP
http://www.dummies.com/how-to/content/how-to-manually-assign-an-ip-address-in-windows-xp.navId-323059.html

Windows 7
http://www.dummies.com/how-to/content/how-to-manually-assign-an-ip-address-in-windows-7.html
Setting for Windows 8 or later Windows version is similar to above process.

Customer Service:
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