

# PWNLT SNAPSHOT CONTROLLER

## OVERVIEW

The PWNLT Snapshot<sup>1</sup> Controller is a multi-protocol controller that provides bi-directional communication between a DMX512 lighting system and a wired nLight network.

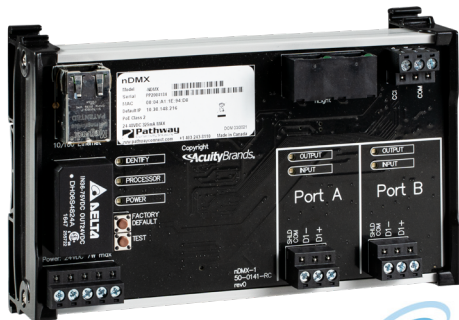
This device allows nLight wall switches, sensors, and nLight ECLYPSE™ System Controllers to directly control theatrical DMX lights. It also enables any DMX theatrical console to trigger scenes and broadcast levels to nLight channels.

Like any nLight wired device, the PWNLT Snapshot Controller is visible and configurable using SensorView and an nLight ECLYPSE controller or nComKit. It consumes 17 nLight addresses; 16 outputs and 1 input. The input is uniquely composed of 16 wallpods and 16 scenes.

The recording of DMX snapshots and other DMX playback parameters is done with Pathscape<sup>2</sup>.

## FEATURES

- Converts DMX512 to nLight protocol, or vice versa
- Trigger up to 16 DMX 4-universe<sup>3</sup> snapshots
- Control up to 16 nLight channels and send Profile Scenes
- Two DMX512 ports, individually configurable as In or Out/Thru
- Two nLight ports, each source 40mA of bus power
- 10/100 Mbps Ethernet network port (PoE)
- Send and receive sACN<sup>4</sup> on Ethernet port and merge with snapshots or build priority rules<sup>5</sup>
- Compatible with Vignette Snapshot and Zone Controller wall stations and systems
- Simultaneously and in real-time, map up to eight theatrical DMX control sources<sup>6</sup> for merging to each output slot<sup>7</sup>
- Acts as E1.20 RDM<sup>8</sup> controller, when used with free Pathscape configuration software
- User-configurable DMX output speed and signal loss behavior
- Supports the following DMX-over-Ethernet protocols:
  - Pathway Secure sACN<sup>9</sup>
  - E1.31 streaming ACN (sACN)
- Silent, fan-less operation
- PoE-powered or 24VDC
- Configurable Dry Contact closure for high priority DMX level control



Model shown: PWNLT DIN P2 SNAPSHOT

## WARRANTY

3-year limited warranty. Complete warranty terms located at: <https://www.acuitybrands.com/support/warranty>

## NOTE

Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

## ORDERING INFORMATION

PWNLT DIN P2 SNAPSHOT			
Series	Form Factor	Port Quantity	Model
PWNLT nLight to Pathway DMX Controller	DIN DIN-mount	P2 2 DMX Ports	SNAPSHOT DMX/sACN Snapshot Controller

## Notes

1. A **Snapshot**, similar to an nLight scene, is the recording of DMX512 levels created by any theatrical console or similar controller. The PWNLT can smoothly fade between any one static snapshot to another.
2. **Pathscape** is the free downloadable all-in-one configuration tool for all Pathway Connectivity devices. Both macOS and Win64 versions are available.
3. A DMX **Universe** is 512 discrete levels transmitted on a data cable. Each data slot is an 8-bit level that may be used to define an intensity, color or other parameter which affects the quality of light.
4. **sACN** is formally known as "ANSI E1.31 Lightweight streaming protocol for transport of DMX512 using ACN". ACN stands for Architecture for Control Networks. Simply put, it's DMX512 over IP.
5. **Priority Rules** define what a single data slot (DMX level) should resolve to if more than one controller is trying to set its level.
6. A **Control Source** can be any theatrical console, architectural controller, show controller, media server, time clock, touch screen, wall station or any device that sends DMX512 levels.
7. Each DMX512 Universe carries 512 **Data Slots** which repeat up to 44 times per second. Most lighting devices use one 8-bit data value (0 to 255) to define the intensity of the color, but devices that need more precision may use two adjacent slots giving 16-bit resolution (65,535 discrete values). If each device was 16-bit, then you could define only 256 parameters in one DMX Universe.
8. **RDM** is formally known as "ANSI E1.20 Remote Device Management over USITT DMX512 Networks". It is a half-duplex protocol, using the same data-pair as DMX, interwoven between DMX512 packets. It allows controllers to set operational parameters of specific devices on the data link and ask for information from them, such as DMX Addresses, modes of operation, or temperature.
9. **Pathway Secure sACN** is a Cyber Secure method of transmitting DMX512 show data over IP.

---

## SPECIFICATIONS

---

### Electrical

**Input Ratings** PoE Class 2 device  
24VDC power input  
7W maximum power consumption

**Output Ratings** 16-24VDC, ~40mA per RJ45 port

**Regulatory Compliance** FCC Title 47 CFG Part 15 B Class A

---

### Mechanical

**Dimensions** 6.25" W x 4" H x 1.85" D (159mm W x 103mm H x 47mm D)

**Weight** 0.47 lbs (0.21 kg)

**Mounting Interface** 35mm x 7.5mm DIN rail

---

### Environmental

**Operating Temperature** 14°F to 113°F (-10°C to 45°C)

**Relative Humidity** 5-95%, non-condensing

**Standard Compliance** RoHS 2011/65/EU:2015/863

---

### General

**Compliance** ANSI E1.11 DMX512-A R2013  
ANSI E1.20 RDM<sup>1</sup> - Remote Device Management  
ANSI E1.31 sACN - Streaming ACN  
ANSI E1.33 RDMnet<sup>1</sup>  
IEEE 802.3af Power-over-Ethernet  
California Title 1.81.26, Security of Connected Devices

**Notes**

1. Ports configured as outputs are RDM Controllers when used with Pathscape or E1.33 RDMnet. RDM cannot pass from an input port to an output port.

## ADDITIONAL ORDERING INFORMATION

Related Products	
PWINS XLR5M IDC5 [SS/BL/WH]	Insert XLR 5-Pin Male 5-Pin Insulation Displacement Contact Connector [Stainless Steel/Black/White]
PWINS XLR5F IDC5 [SS/BL/WH]	Insert XLR 5-Pin Female 5-Pin Insulation Displacement Contact Connector [Stainless Steel/Black/White]
PWINS XLR5M CSC5 [SS/BL/WH]	Insert XLR 5-Pin Male 5-Pin Compression Screw Connector [Stainless Steel/Black/White]
PWINS XLR5F CSC5 [SS/BL/WH]	Insert XLR 5-Pin Female 5-Pin Compression Screw Connector [Stainless Steel/Black/White]
PWINS RJ45EC PD [SS/BL/WH]	Insert RJ45 etherCON Punch Down [Stainless Steel/Black/White]
PWENC MED HOR	DIN System Enclosure 10" x 23" x 4.5" Medium DIN System Enclosure Horizontal Rails
PWENC LRG VER	DIN System Enclosure 18.5" x 31.5" x 6.25" Large DIN System Enclosure Vertical Rails
PWCON SPARE IDC3 Q4	Connector Spare 3-Pin Insulation Displacement Contact Connector (Qty 4)
PWCON SPARE CSC3 Q4	Connector Spare 3-Pin Compression Screw Connector (Qty 4)
Pre-built assemblies	
PWSA 50W 24V SML VER 1PWNLTSNAPSHOT	Pre-built Assembly 50 Watt 24VDC Power supply 10" x 13" x 4.5" Small DIN System Enclosure Vertical Rails PWNLT DIN P2 SNAPSHOT installed in Position 1

## WIRING

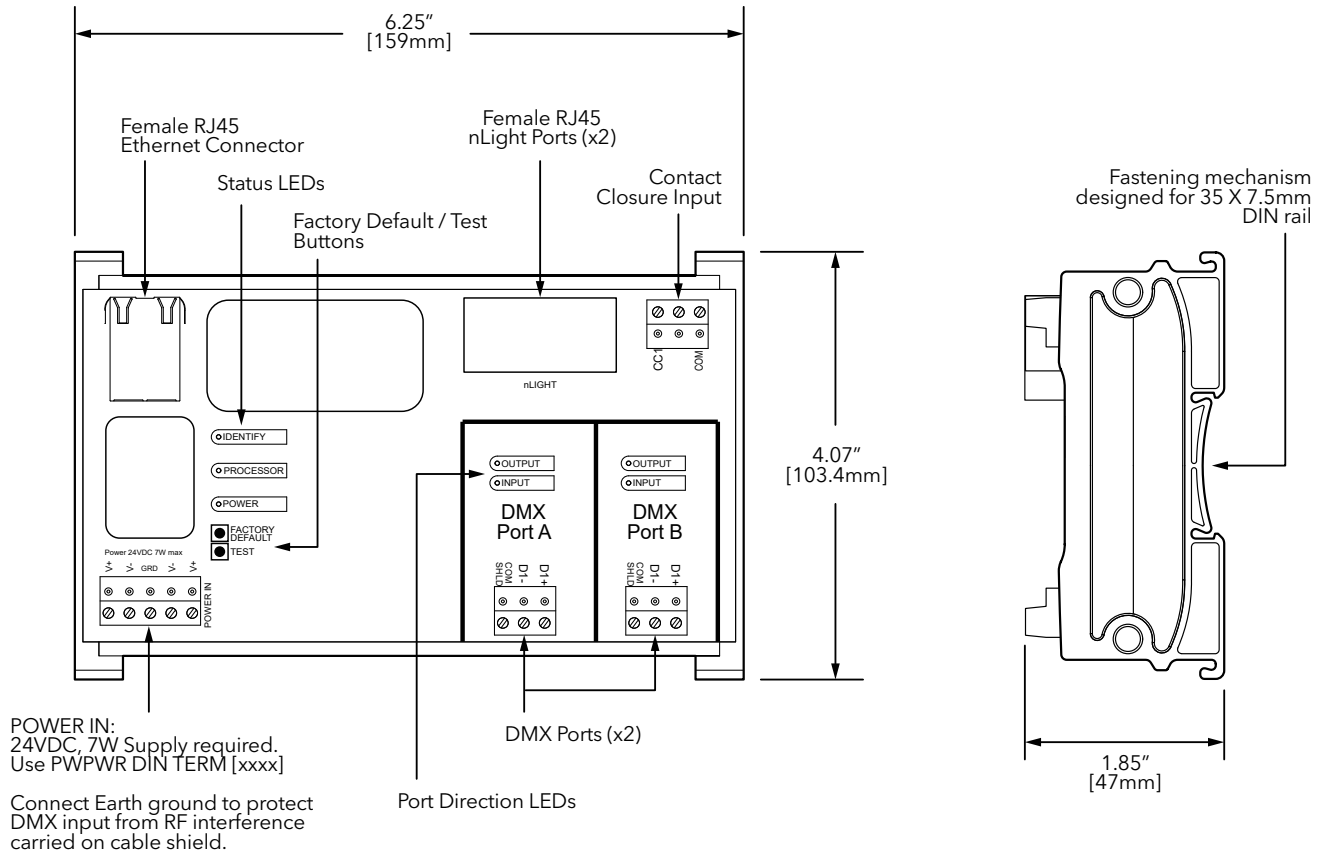
DMX512 / RDM PINOUT		
Purpose	XLR / Terminal Block Pin #	RJ45 PIN # and Wire Color
Shield / Common	1	7 - White / Brown or 8 - Brown <sup>1</sup>
Data - (complement)	2	2 - Orange
Data + (true)	3	1 - White / Orange

### Notes

- For Insulation Displacement Contact (IDC) connectors, connect *only one* of these wires.

nLIGHT WIRING GUIDE
<b>DO</b> terminate cables according to T568B.
<b>DO</b> make sure crimps are deep, straight and that the blades penetrate the conductors evenly for proper contact.
<b>DO</b> use a remote cable tester to verify each CAT-5e cable.
<b>DO NOT</b> use cables with strain-relief boots at connectors. Some nLight devices have limited cabling space that does not allow for boots.
<b>DO</b> protect CAT-5e connectors (bag and tie) and cover open ports if construction is ongoing and connections cannot be completed.
<b>DO NOT</b> use tape on connectors residue from tape will cause poor connections.

## DIMENSIONS



## APPLICATION RISER

