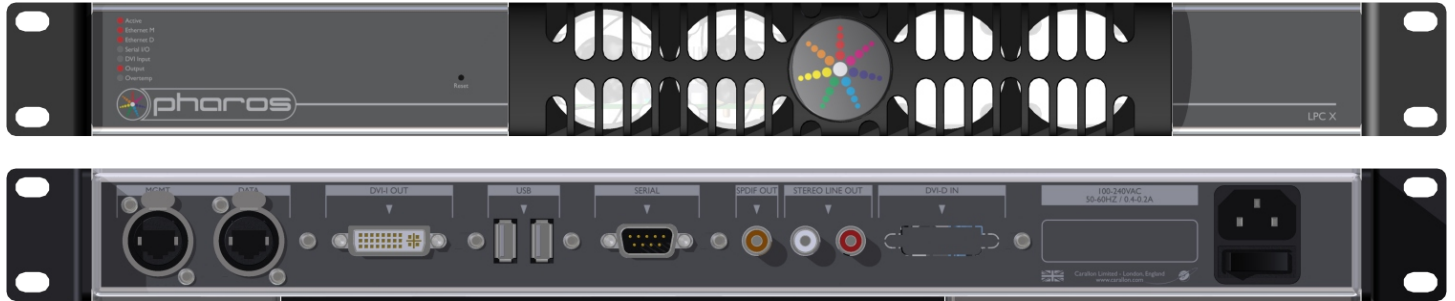## Overview

The Pharos LPC X (Lighting Playback Controller X) offers an extreme level of power and integration, making it an ideal solution for landmark lighting installations with significant channel counts. It integrates with the full range of Pharos products and offers an optional real-time video input.

Features

Pharos Engine

The intelligent Pharos Engine gives you complete control of your installation. Based on individually controllable and independently running timelines and scenes, it lets you build dynamic, precise, fully customisable pre-programmed lighting displays, all while giving you the freedom of real-time manual overrides, flexible multi-zone control, prioritisation and more.

Pharos Mapping

Design the big picture; control every pixel. Create a map of your fixtures within the Designer software, then use Pharos Mapping to create visually striking effects or play video across the entire array. Powerful controls allow you to build maps fast with pixel-precise adjustment. Multiple maps can be created to support different zones or for modelling different views of your installation.

Pharos Trigger

Timing is everything. Whatever the stimulus, Pharos Trigger can handle it. You can control your lighting with responsive, reactive programming. Pharos Trigger is a rules engine that uses conditional logic and a broad range of interfaces and protocols. Send and receive any command, to and from any system. Conditional logic is supported, along with a powerful built-in scripting language for unlimited flexibility.

Scalable

The right fit for every installation. Multiple Pharos Controllers can be seamlessly linked together to work as one via a standard Ethernet network giving impressive scalability. For additional integration options simply add Remote Devices to further extend the network. Whether one Controller or many, it's all easily programmed using our Designer software.

Flexible

Be limited by your design brief, not your control system. Our products support a vast range of different fixture types and can output multiple DMX-over-Ethernet (eDMX) lighting protocols at the same time. No other system gives you this level of flexibility and control over your project.

Remote Management

The control you need in your browser – from anywhere. Pharos Controllers can be connected to a network, making it possible for you to remotely manage your installation. The built-in web server lets you check the Controller's status, inputs and outputs, trigger timelines, view a full history log and much more.

Custom Interfaces

Create a custom web interface for your installation that gives your users the control they need and the look they expect. Our built-in web server supports an extensive JavaScript API and access control with multiple user levels.

Pharos Designer

Programmed and configured using the free Pharos Designer software – available for Windows or Mac OS X – with upload over Ethernet.

Reliable

Hardware and firmware are self-sufficient, so no PC needs to be left on site. Rugged, compact unit designed for 24/7 operation and reliability.

Video Input

Optional DVI-D input for mapping live video, supporting up to 1080p60 with configurable scaling and X/Y pixel offset.

5 Year Warranty

Designed and manufactured in the UK, with quality and reliability our top priority.

Certifications

CE compliant, ETL/cETL listed, and California Title 20/24 compliant.

pharoscontrols.com

The Smart Lighting Company, 1731 Kaiser Ave, Irvine, CA 92656   949.346.3456   www.thesmartlightingcompany.com

Supported Fixtures

LEDs	LEDs in any colour configuration (RGB, RGBW, 8-bit, 16-bit, tuneable white)
Automated	Moving heads, yokes or scanners
Generic	Downlights, spotlights, uplights, etc. via controllable dimmers, relays or ballasts
Fountain Jets	Fountain jets for fountain animation or other animatronics
Fixture Library	Pharos offers a cloud library with over 13,000 fixture profiles, for easy download of your luminaires

Output

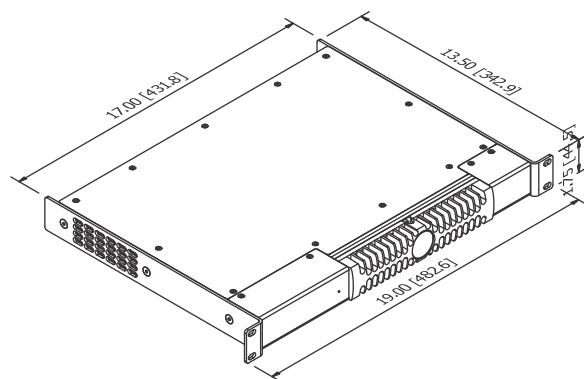|	
sACN	USITT E1.31 (with per fixture priority)
Art-Net	ArtNet, ArtNet II and ArtNet III (configurable broadcast override)
KiNET	KiNET V1 (DMX out) and V2 (Port out); PDS/Data Enabler discovery
Pathport	Pathway Connectivity protocol
DVI-I	DVI-I output for video-mapped fixtures
DMX512	Via any eDMX node
DALI	Via RIO D (supplied separately)
Scalable	Synchronises with up to 40 Pharos Controllers over network
Simultaneous	Multiple protocols can be in operation simultaneously. Limited by patched channels, not universes used

Triggering & Integration

Startup	Commences programmed playback automatically on receiving power
Clock	Battery-backed real-time clock for calendar and time-based triggers
Astronomical	Sunrise/Sunset/Twilight and Lunar phases
Ethernet	UDP, TCP, Multicast; send/receive any Ethernet message
RS232 Serial	Configurable port; send/receive free syntax in ASCII, HEX or decimal
eDMX	sACN or Art-Net
Inputs	Contact closure, active low, active high or 0-24V analog level via RIOs
Outputs	Isolated relay outputs (48V 250mA) via RIOs
MIDI	MIDI Notes, SysEx or Timecode via RIO A
Timecode	Linear Timecode via RIO A (SMPTE, Film, EBU, NTSC)
Audio Level	Stereo 30-band spectrum analysis via RIO A
RS485 Serial	Via RIO; configurable port; send/receive free syntax in ASCII, HEX or decimal
DALI	Trigger on any message, via RIO D
Web Interface	Built-in or custom designed
Wall Stations	Integrate with BPS, TPS or TPC
Conditions	Full conditional logic support
Scripting	Lua scripting for total flexibility
Scalable	Supports Pharos Remote Devices

Interfaces

Ethernet	Neutrik etherCon (RJ45 compatible) for 10/100/1000Base-TX Ethernet with Link/Data LEDs; Static IP or DHCP
eDMX	Dedicated Ethernet port for eDMX; Neutrik etherCon (RJ45 compatible) for 10/100/1000Base-TX Ethernet with Link/Data LEDs; Static IP or DHCP
DVI-I Output	DVI-I output for monitoring or video mapped fixtures
Serial	RS232 via DB9 connector
USB	Two USB 2.0 Type A ports (for future development)
Audio Outputs	Stereo analog & digital audio ports (for future development)
DVI-D Input	Video input up to 1080p60 (with DVI-D IN option)

Specifications

Certifications	CE compliant, ETL/cETL listed
Power	100-240VAC / 50-60HZ / 0.4-0.2A 40W typical (50W maximum) IEC connector with switch UK, EU and US cable supplied
Data Storage	Internal 16GB SSD (supplied)
Configuration	Pharos Designer 2.2 or later
Temperature	0°C to 50°C (32°F to 122°F)
Humidity	10-50% relative, non-condensing
Ingress	IP40
Physical	19″ rack unit, 1U, 13.5″ deep 3.1 kg (6.8 lbs)
Shipping	57 x 45 x 18 cm (22″ x 18″ x 7″) 5.0 kg (11 lbs)
Recovery	Hardware watchdog and recessed reset button
Warranty	5 years

Order Code & Variants

LPC 10	Lighting Playback Controller 10 (5,120 channels eDMX/DVI)
LPC 20	Lighting Playback Controller 20 (10,240 channels eDMX/DVI)
LPC 30	Lighting Playback Controller 30 (15,360 channels eDMX/DVI)
LPC 40	Lighting Playback Controller 40 (20,480 channels eDMX/DVI)
LPC 50	Lighting Playback Controller 50 (25,600 channels eDMX/DVI)
LPC 60	Lighting Playback Controller 60 (30,720 channels eDMX/DVI)
LPC 70	Lighting Playback Controller 70 (35,840 channels eDMX/DVI)
LPC 80	Lighting Playback Controller 80 (40,960 channels eDMX/DVI)
LPC 90	Lighting Playback Controller 90 (46,080 channels eDMX/DVI)
LPC 100	Lighting Playback Controller 100 (51,200 channels eDMX/DVI)
DVI-D IN	DVI-D Input upgrade (HD capture card)