

iCOLOR MODULE FX


Color Kinetics® iColor® Module FX (6:9 and 6:36) is a new lighting medium for wide-ranging designs, providing lighting professionals with a 6-inch (15.2 cm) square modular panel with singularly controllable points of light which are ideal for interior surface designs, back lighting, and three-dimensional objects. This indoor-rated product is encased in a matt black polycarbonate protective housing which can be installed in a tiled array mounted side-to-side or spaced up to three inches apart, with board-to-board connections.

Each iColor Module FX panel incorporates 9 or 36 individually addressable tri-color LED nodes on a printed circuit board driven by Color Kinetics Chromasic® technology employing a microchip that integrates power, communication, and control to individual nodes, across one unit or a multi-unit installation, making iColor Module FX extraordinarily flexible. This fine-grained level of control makes possible the creation of scrolling images, animation, and morphing shapes and patterns. Nodes on iColor Module FX 6:9 are spaced 2 inches on center vertically and horizontally. Nodes on iColor Module FX 6:36 are spaced 1 inch on center vertically and horizontally.

Four mounting through-holes and board-to-board snap-in connectors minimize installation time and tools, whether the units are positioned apart or conjoined to form grids and custom shapes. Applications range from simple color changing effects to intricate designs and animations.

iColor Module FX receives power and data from Color Kinetics 7.5V Chromasic power/data supplies which are available with Ethernet or DMX512 control. The power/data supplies support between 16 and 128 9-node and between 4 and 32 36-node light panels. The compact size allows for discrete installations. An iColor Module FX installation uses a 30-foot leader from the power/data supply to the panel and 12-inch jumper cables for connections between units.

iColor Module FX is compatible with most Color Kinetics controllers and third-party DMX controllers. To realize its full potential for sophisticated effects, iColor Module FX is optimally controlled by Light System Manager—the Color Kinetics Ethernet-based control system.

ICOLOR MODULE FX SPECIFICATIONS

COLOR RANGE	64 billion (24-bit) additive RGB colors; continuously variable intensity
SOURCE	6:9 - 9 LEDs packaged in tri-color-Red, Green, and Blue-nodes 6:36 - 36 LEDs packaged in tri-color-Red, Green, and Blue-nodes
HOUSING	Matte Black Polycarbonate, 6"(15 cm) x 6"(15 cm) x 0.75"(2 cm)
LISTINGS	UL/cUL, CE certified

COMMUNICATION SPECIFICATIONS

DATA INTERFACE	Color Kinetics data interface system
CONTROL	Ethernet or DMX512

ELECTRICAL SPECIFICATIONS (LIGHTS)

POWER REQUIREMENT	7.5VDC
POWER CONSUMPTION	6:9 - 4W, 6:36 - 12W Max. at full intensity (full RGB)
POWER SUPPLY	PDS-60ca 7.5V DMX/Ethernet (Item# 109-000015-03) sPDS-480ca 7.5V Ethernet (Item# 109-000022-00)

ELECTRICAL SPECIFICATIONS (POWER/DATA SUPPLY)

POWER INPUT	100VAC to 240VAC auto ranging (50Hz–60Hz) Power factor correction (PFC)
POWER OUTPUT	7.5VDC
HEAT DISSIPATION	25 percent of total power output
HOUSING	NEMA 4 indoor/outdoor rated enclosure
CONNECTORS	Data: RJ45 input/output connectors Power: 4-pin connector

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE RANGE	-4°F to 122°F (-20°C to 50°C) based on testing of specific product
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LED SOURCE LIFE

In traditional lamp sources, lifetime is defined as the point at which 50% of the lamps fail. This is also termed Mean Time Between Failure [MTBF]. LEDs are semiconductor devices and have a much longer MTBF than conventional sources. However, MTBF is not the only consideration in determining useful life. Color Kinetics uses the concept of useful light output for rating source lifetimes. Like traditional sources, LED output degrades over time (lumen depreciation) and this is the metric for SSL lifetime.

LED lumen depreciation is affected by numerous environmental conditions such as ambient temperature, humidity, and ventilation. Lumen depreciation is also affected by means of control, thermal management, current levels, and a host of other electrical design considerations. Color Kinetics systems are expertly engineered to optimize LED life when used under normal operating conditions. Lumen depreciation information is based on LED manufacturers' source life data as well as other third party testing. Low temperatures and controlled effects have a beneficial effect on lumen depreciation. Overall system lifetime could vary substantially based on usage and the environment in which the system is installed. Temperature and effects will affect lifetime. Color Kinetics rates product lifetime using lumen depreciation to 50% of original light output. When the fixture is running at room temperature using a color wash effect, the range of lifetime is in the range of 30,000-50,000 hours. This is LED manufacturers' test data. For more detailed information on source life, please see www.colorkinetics.com/lifetime.

CHROMACORE®
BY COLOR KINETICS

CHROMASIC®
BY COLOR KINETICS

OPTIBIN®
BY COLOR KINETICS


iColor Module FX ITEM# 101-000060-00 (6:9)
ITEM# 101-000060-01 (6:36)

This product is protected by one or more of the following U.S. Patents and their foreign counterparts: 6,340,868, 6,608,453, 6,777,891, 6,888,322, 6,965,205, 6,975,079, and 7,064,498. Other patents pending.

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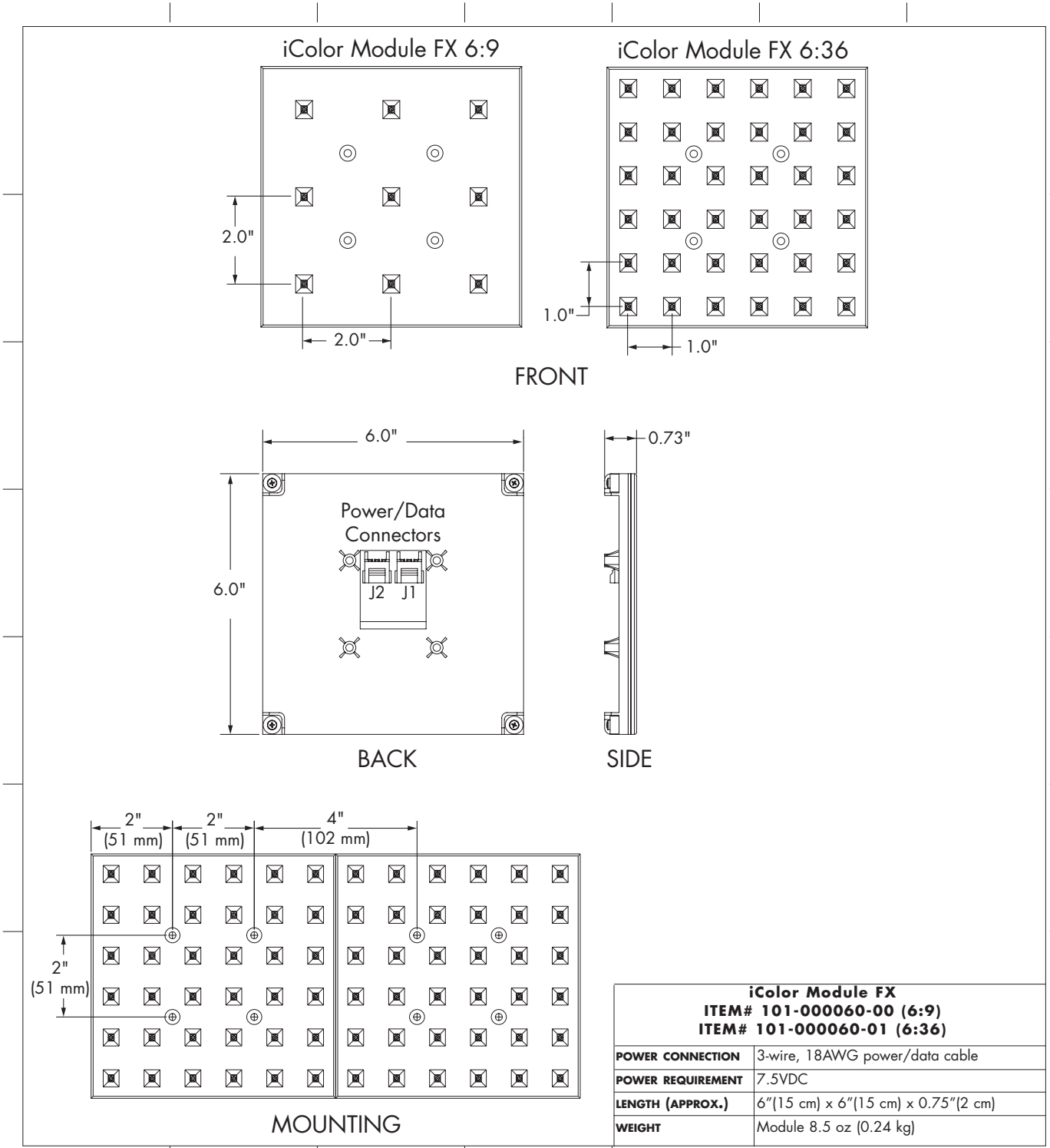
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BR0134 Rev 05

Specifications subject to change without notice. Refer to www.colorkinetics.com for the most recent version.

iColor Module FX

PHYSICAL DIMENSIONS



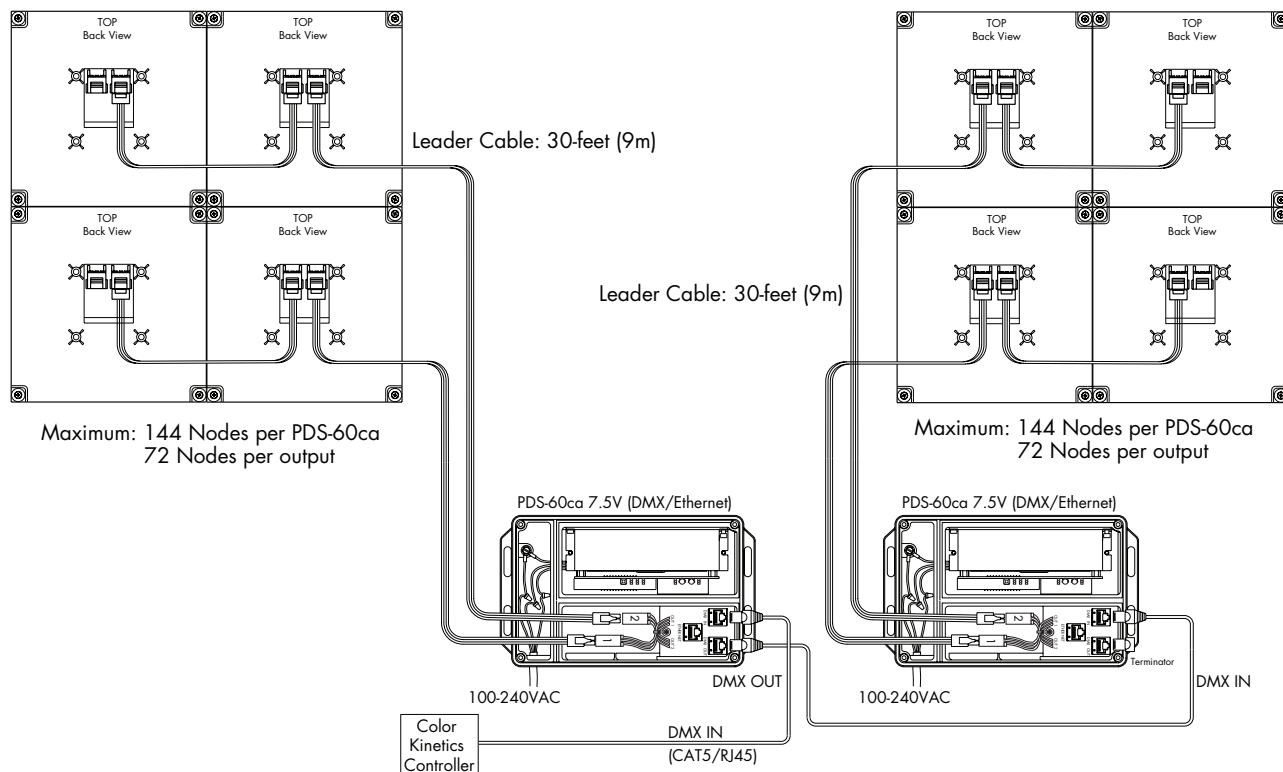
OPTIBIN®

There are inherent variations in the fabrication processes of all semiconductor materials. For LEDs, this variance results in differences in the color and intensity of light output as well as electrical characteristics. Due to these differences, LED manufacturers sort production into "bins," but insuring the availability of a single bin is very difficult. To minimize this issue and achieve optimal color consistency in its products, Color Kinetics has developed and uses a proprietary technology called Optibin. Optibin is an advanced production binning optimization process that minimizes the effects of LED variance for the best possible output uniformity in the final product. Color Kinetics Optibin technology gives the most consistent control of color and intensity from product to product.

iCOLOR MODULE FX

FUNCTIONAL FLOW DIAGRAMS

iColor Module FX with PDS-60ca 7.5V (DMX)



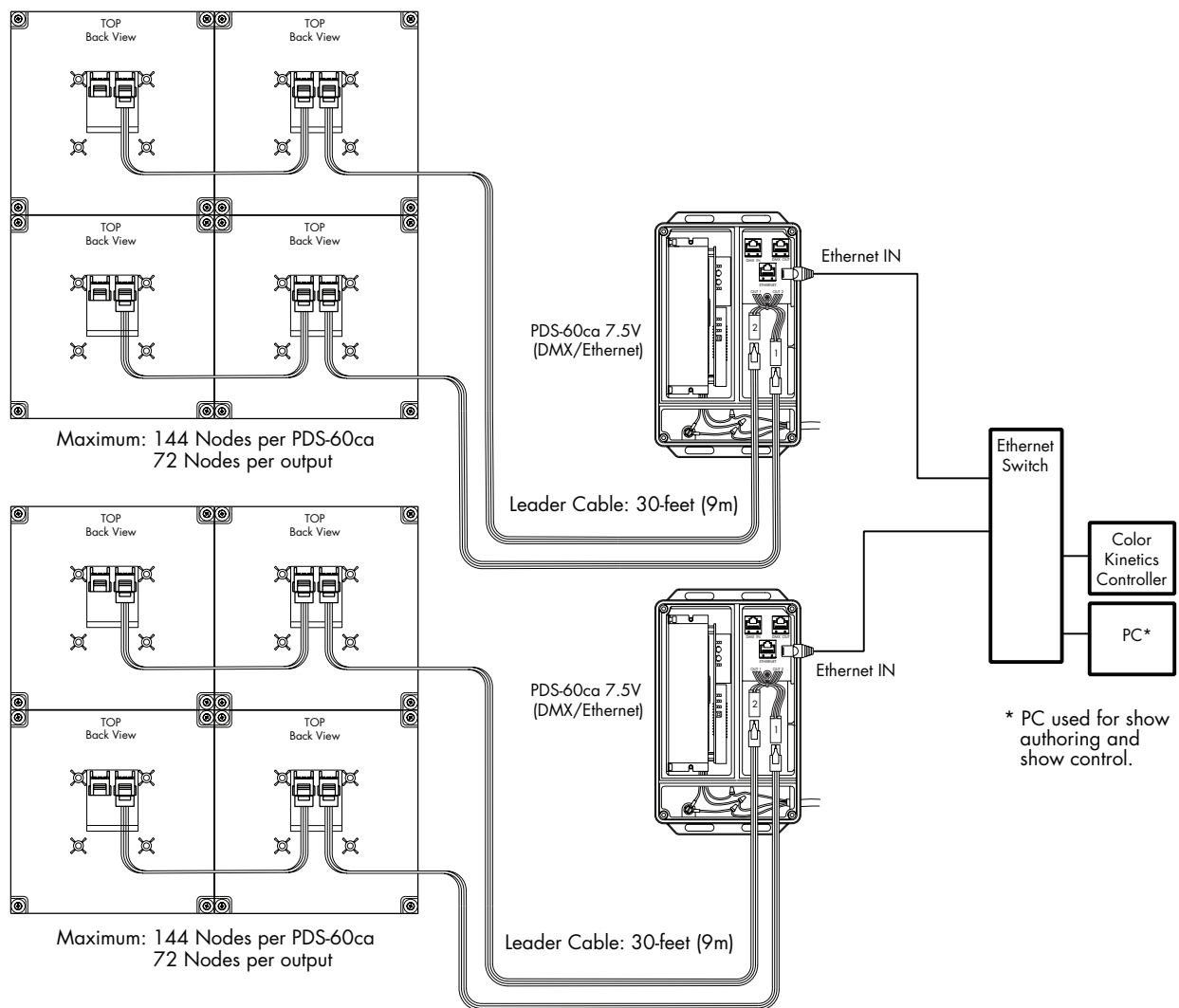
For complete installation instructions and safety precautions, refer to the iColor Module FX User Guide and wiring diagrams located at www.colorkinetics.com/support.

Additional Items	
POWER/DATA SUPPLY	PDS-60ca 7.5V (109-000015-03)
CONTROLLER	Light System Manager (103-000015-00) or Video System Manager (103-000018-00) or iPlayer 2 (103-000007-00/01)
CABLES	Leader (108-000018-00) Jumper (108-000019-00)

iCOLOR MODULE FX

FUNCTIONAL FLOW DIAGRAMS

iColor Module FX with PDS-60ca 7.5V (Ethernet)



For complete installation instructions and safety precautions, refer to the iColor Module FX User Guide and wiring diagrams located at www.colorkinetics.com/support.

Additional Items	
POWER/DATA SUPPLY	PDS-60ca 7.5V (109-000015-03)
CONTROLLER	Light System Manager (103-000015-00) or Video System Manager (103-000018-00)
CABLES	Leader (108-000018-00) Jumper (108-000019-00)

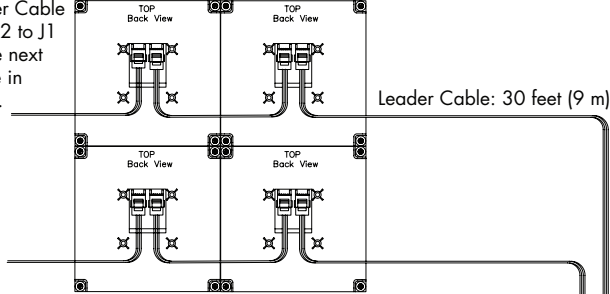
iCOLOR MODULE FX

FUNCTIONAL FLOW DIAGRAMS

iColor Module FX with sPDS-480ca 7.5V (Ethernet)

Power/Data Jumper Cable from J2 to J1 on the next fixture in series.

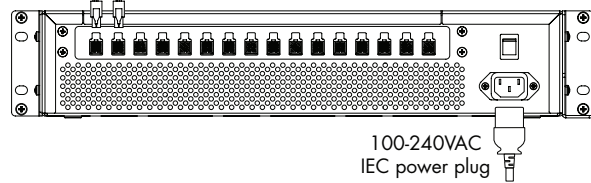
iColor Module FX



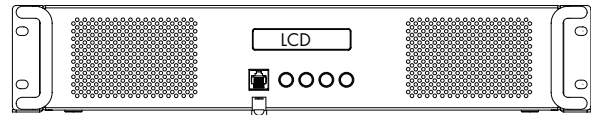
	Maximum Series Runs per sPDS-480ca 7.5V	Per Output
Total Nodes	1152	72
36 Node Modules	32	2
9 Node Modules	128	8

Notes:

- Never use a Data Terminator with Ethernet input.
- Do not shorten or lengthen leader cable. Cutting the leader cable will damage the modules and/or power/data supply.

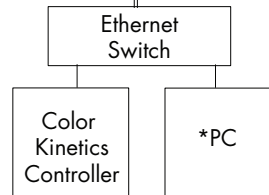


100-240VAC IEC power plug



Cat5e/RJ45

Out to additional sPDS-480ca units or out to Ethernet switch (up to 3 levels in total).



*PC used for show authoring and show control.

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Additional Items	
POWER/DATA SUPPLY	sPDS-480ca 7.5V (109-000022-00)
CONTROLLER	Light System Manager (103-000015-00) or Video System Manager (103-000018-00)
CABLES	Leader (108-000018-00) Jumper (108-000019-00)