

White Sapphire™ 600 OLED Lighting System Kit Product Data Sheet

Version 3

White Sapphire™ is an organic light emitting diode (OLED) introductory lighting system, It is an out-of-the-box and simple to use product. White Amethyst™ is for concept products and beta product lighting systems. An OLED with a configurable electronic driver is supplied.

OLED lighting offers an elegant, new and unparalleled dimension to lighting, that other lighting technologies cannot match. OLEDs are the new solution for decorative lighting with the functional requirements of mood lighting. It is ultra-thin, covers a large area and has a good light luminosity for a low power consumption.



Light Design Benefits Of The White Amethyst™ OLED Kit

1. New interior light design aesthetics and scenographics
2. Integrate into light-art, or novel packaging
3. Soft, non glaring, flat light that can be looked at and admired
4. Create large area, thin profile lighting
5. Mirrored, or diffused finish to the light
6. Modern, minimalist appearance
7. Quality light -off appearance
8. Instant light-on and light-off control
9. Electronic light-dimming control
10. Technical support to get White Amethyst™ working and to develop applications

Technical Benefits and Features Of The White Sapphire™ OLED Kit

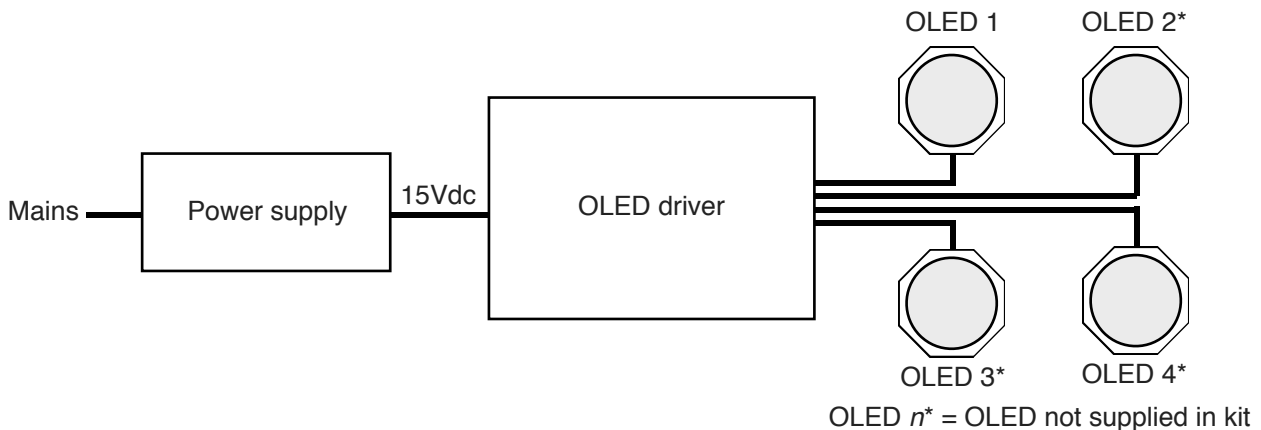
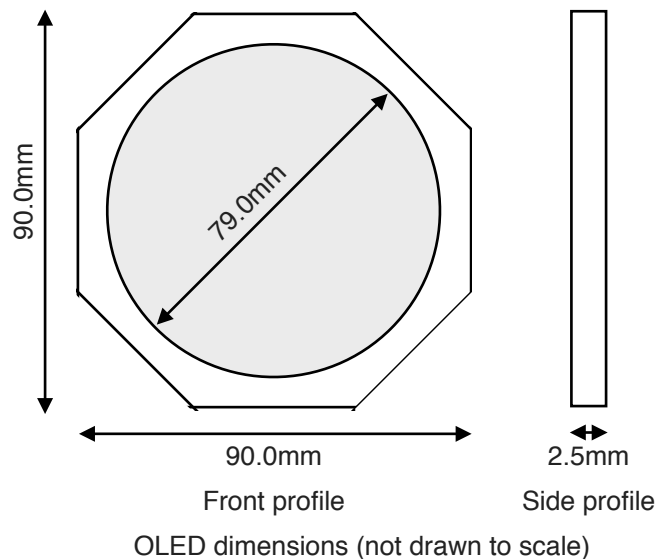
1. Ultra thin light 2.0mm
2. Uniform circular area of light, 79mm diameter
3. Very low power consumption of light 3.4V, 150mA (510mW)
4. Excellent luminosity, 1000cd/m²
5. Lightweight, 24g
6. Mercury free and RoHS compliant
7. No infra-red (thermal dissipation), or ultraviolet emissions
8. Programmable OLED drive electronics using a Windows program
9. Drive electronics can control four OLEDs simultaneously with different functionality
10. Advanced low electromagnetic emissions

White Sapphire™ Kit Contents

The White Sapphire™ kit enables the user to within seconds connect the kit's components together, to make a working OLED lighting system. Using the provided driver, users can alter the lights luminosity level, configure lighting sequences for up to four OLEDs (one is provided) and use the on-board light sensor for mood lighting:

Part	Description
OLED	79mm diameter OLED light tile
OLED driver	Electronic driver for controlling the OLED

White Sapphire™ kit contents



White Sapphire™ kit connectivity

Comparison of Lighting Technologies

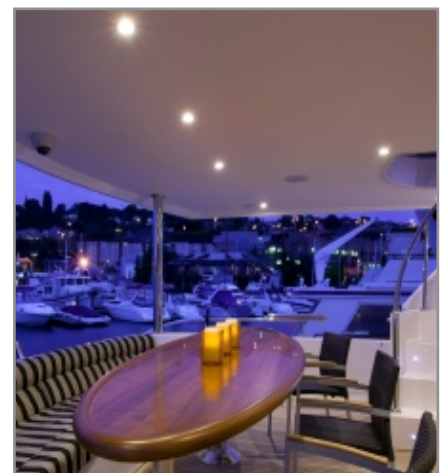
OLED lighting has numerous differences to existing in-organic light emitting diode (LED), and halogen lighting technologies. The choice is dependent on the requirements of the lighting application:

Benefit / Feature	OLED	LED	Halogen
Light type	Area	Point	Point
Surface Profile	Flat	Small	Bulbous
Thickness	Ultra-thin	Good	Poor
Reliability	Good	Excellent	Poor
Mechanical durability	Good	Excellent	Medium
Wide-area lighting	Excellent	Poor	Medium
High luminosity	Good	Poor	Medium
Colour options	Few	Poor	Poor
Thermal dissipation	None	Some	Very High
Operational lifetime	Good	Excellent	Poor
Fast switching speed	Excellent	Excellent	Poor
Power consumption	Very low	Low	Medium
Mercury in light	None	None	None

Comparison of lighting technologies

White Sapphire™ is ideal for applications where there are new lighting concepts being developed, or where there is a beta product being designed.

The electronics are designed to versatile enabling users to quickly and easily connect an OLED lighting system together for up to four OLED devices.



OLED mood lighting

Polymertronics' Expertise

Polymertronics' products are designed to be out-of-the-box and simple to use. The product range is for businesses and educators who want to understand OLED technology and to develop products for market:

1. Flexible, rigid and inkjet printable OLED Science Kits for experimenting with OLEDs
2. Ultraviolet curing expertise and equipment for printable electronics
3. Electronic drivers for optimizing OLED performance
4. Solid state lighting development products and expertise
5. Full product development capability for applications
6. *Center-Point* for finding resources and answers to queries

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Note₁ : Polymertronics reserves the right to amend this product's specification and/or look of the product without updating this data sheet.

Note₂ : Polymertronics is a subsidiary of E²M Technology Limited, United Kingdom.