Press Release

Oct. 17, 2018

LED Engin Introduces World's First 50W Seven-Die LED Emitter

LED Engin's LZ7 Plus is the ultimate solution for stage lighting applications

SAN JOSE, Calif. – <u>LED Engin</u>, an <u>Osram</u> business, has unveiled the LZ7 Plus, the world's first 50W seven-die LED emitter. The trend in stage lighting fixtures has evolved from not only delivering ultra-bright light with narrow beam, but also creating more sophisticated color schemes and high CRI white. LZ7 Plus is uniquely designed to address this trend, featuring seven high-power dies in six colors, which can be individually controlled to deliver intense, saturated colors, as well as high quality white light as a result of color mixing. The LZ7 Plus can be used in various stage fixtures, such as static and moving head wash fixtures, as well as profile fixtures.

The new LED features a 50W package with high-current red, green and blue dies, as well as cyan, two phosphor-converted lime dies and phosphor-converted amber die. The dies are closely packed in a low thermal resistance package with an integrated flat glass lens. The addition of high performance cyan, lime and amber to the traditional RGB color in a compact light-emitting surface of 3.4mm x 3.4mm, when coupled with secondary optics, produces an ultra-bright light with narrow beam, richer and wider color combination, as well as high CRI white, all from a single LED emitter.

To achieve this unprecedented performance, the underlying powerhouse is LED Engin's proprietary LuxiGen[™] platform. Featuring a patented multi-layer ceramic substrate technology, the platform allows all seven dies to be placed closely together, and delivers an ultra-low thermal resistance allowing heat to be dissipated efficiently from the dies.

"There is growing demand for stage lighting with more sophisticated color requirements, without sacrificing brightness and beam quality," said David Tahmassebi, CEO of LED





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Engin. "The LZ7 Plus offers an unparalleled combination of colors in a powerful, high quality package to deliver performance not seen before in stage lighting."

The LZ7 Plus will be shown at <u>Live Design International</u>, held Oct. 19-21, 2018, at the Las Vegas Convention Center, Las Vegas, Nevada. LED Engin will be located in the Osram booth, #1431.

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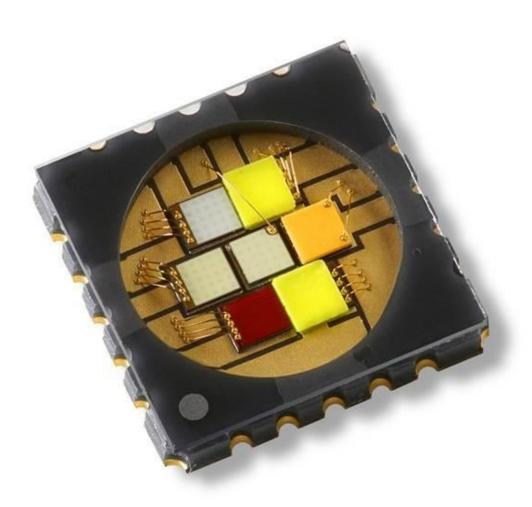
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The LZ7 Plus from LED Engin, designed for stage fixtures, features seven high-power dies in six colors, which can be individually controlled to deliver intense, saturated colors, as well as high quality white light.

Picture: OSRAM

About LED Engin

LED Engin, an OSRAM business based in California's Silicon Valley, develops, manufactures, and sells advanced LED emitters, optics and light engines to create uncompromised lighting experiences for a wide range of entertainment, architectural, general lighting and specialty applications. LuxiGen™ multi-die emitter and secondary lens combinations reliably deliver industry-leading flux density, upwards of 5000 quality lumens to a target, in a wide spectrum of colors including whites, tunable whites, multi-color and UV LEDs in a unique patented compact ceramic package. Our LuxiTune™ series of tunable white lighting modules leverage our LuxiGen emitters and lenses to deliver quality, control, freedom and high density tunable white light solutions for a broad range of new recessed and downlighting applications. The small size, yet remarkably





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powerful beam output and superior in-source color mixing, allows for a previously unobtainable freedom of design wherever high-flux density, directional light is required. LED Engin is committed to provide RoHS and REACH compliant products; and is dedicated to product improvements.

About OSRAM

OSRAM, based in Munich, is a leading global high-tech company with a history dating back more than 110 years. Primarily focused on semiconductor-based technologies, our products are used in highly diverse applications ranging from virtual reality to autonomous driving and from smartphones to smart and connected lighting solutions in buildings and cities. OSRAM uses the endless possibilities of light to improve the quality of life for individuals and communities. OSRAM's innovations enable people all over the world not only to see better, but also to communicate, travel, work and live better. OSRAM has approximately 26,400 employees worldwide as of end of fiscal 2017 (September 30) and generated revenue of more than €4.1 billion. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED 400; trading symbol: OSR). Further information can be found at www.osram.com.

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