Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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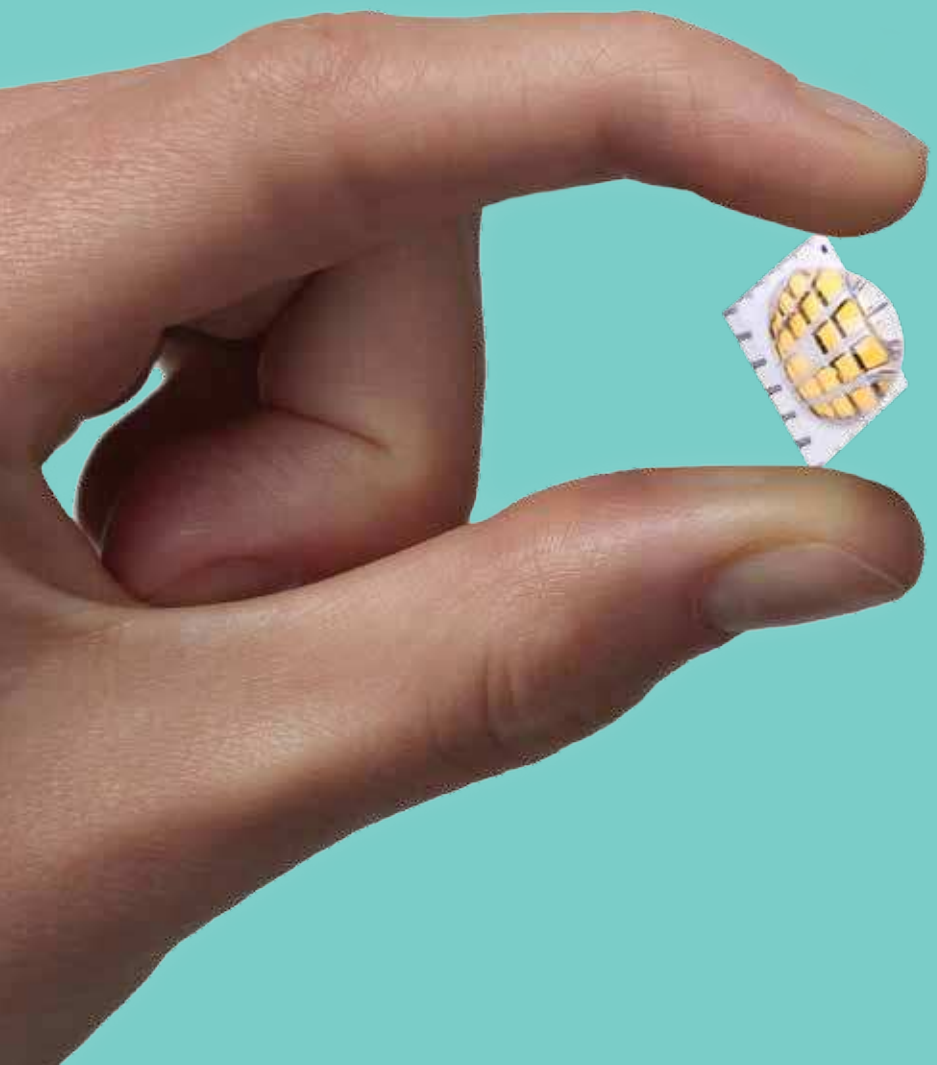
Bright Light.
Tiny Package.

LuxiGen Platform



ENTERTAINMENT LIGHTING

ARCHITECTURAL LIGHTING

HIGH-END INTERIOR SPACES

UV CURING

INFRARED ILLUMINATION

HORTICULTURE & SPECIALTY

LED ENGIN

Bright Light. Tiny Package.

The building blocks of light

The LuxiGen™ platform provides designers and engineers with the building blocks to create dynamic lighting experiences wherever high-flux density, directional light is required — from entertainment lighting and innovative architectural spaces, to high-end downlighting, UV curing, infrared illumination, specialty and industrial lighting sources.

LuxiTune™ series of tunable white light engine is a multi-award winning compact, single emitter solution which leverage our LuxiGen emitters and lenses with smart controls to deliver halogen-style dimming and CCT tuning, giving lighting designers unprecedented creative freedom for dynamic directional lighting applications.

ENTERTAINMENT LIGHTING

When high-intensity, tunable light for stage and studio is required, LuxiGen delivers. With a package that delivers more light to the source, ultimate flexibility in light beam quality and control, and light specifically tuned for skin tones and textiles color rendering, LuxiGen provides the ultimate viewing experience for fans.

ARCHITECTURAL LIGHTING

LuxiGen powered fixtures provide unlimited design flexibility for both interior and exterior architectural spaces with high quality in-source mixing. From vivid wall washing color to high-end effect lighting, the LuxiGen Platform provides the essential building blocks for amazing architectural experiences.

HIGH-END INTERIOR SPACES

Retail and experiential interior environments demand high quality light and illumination. LuxiGen-powered single emitter solutions for down lighting, accent and decorative lighting offer superior color-rendering, color stability and control. Additionally, combination with our uniquely tailored TIR lens creates superior lux-on-target with a high lux, high-quality, well-controlled beam of light.

UV CURING

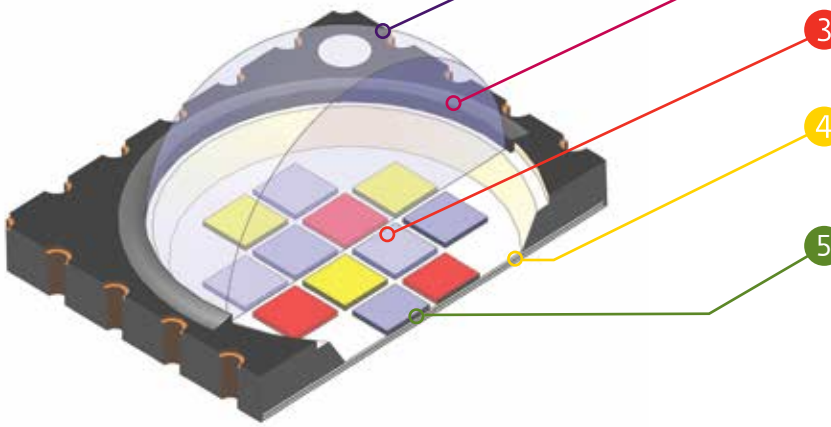
High speed UV curing requires the ultimate in high flux density, extreme reliability and tunable wavelength options. LuxiGen's superior high power density performance provides significant savings in curing and processing times. LuxiGen emitters provide a robust and reliable, energy-efficient solution to handle the demanding environments of printing and curing applications.

INFRARED ILLUMINATION, HORTICULTURE & SPECIALTY

The highly flexible LuxiGen Platform is ideally suited to address the needs of specialized lighting industries such as infrared, horticulture, medical and food illumination. With extreme moisture resistance, heat resilience, and a full range of wavelengths – including the ability to mix within a single package, LuxiGen emitters are well suited for industrial environments.

LuxiGen Packaging Technology

In demanding applications where dynamic directional light is required, choosing the right packaged LED solution is vital. The LuxiGen™ platform delivers high-quality, high-brightness light from a tiny light source. A small light-emitting surface with in-source mixing is essential when combining high lumen density and lux-on-target requirements with the need to tune colors in directional lighting applications.



1. Rugged glass lens resistant to contamination and degradation
2. High strength interlocking lens attach for mechanical robustness
3. Individually addressable die for in-source color tuning
4. Multi-layer, stress-free ceramic substrate engineered to maximize power density and reliability
5. Unique die attachment process to minimize thermal resistance

LuxiGen Family of Products

LuxiGen products benefit from a low thermal resistance, narrow binning options, multiple mounting options and an option for additional ESD protection. Further, the LuxiGen Platform includes a number of secondary optics designed specifically for LuxiGen emitters. These lenses offer superior color-mixing across the full color spectrum and allow for extremely well-controlled, high quality and uniform light.

	 LZ1-SERIES	 LZ4-SERIES	 LZ7-SERIES	 LZ9-SERIES	 LZC-SERIES	 LZP-SERIES
NUMBER OF DIE	1	4	7	9	12	24 or 25
LIGHT EMITTING SURFACE (LES) mm	3.2	6.2	3.8	6.2	8.2	10.5
DIMENSIONS L x W , mm	4.4 x 4.4	7.0 x 7.0	7.0 x 7.0	7.0 x 7.0	9.0 x 9.0	12.0 x 12.0
MAXIMUM DRIVE CURRENT mA	1500	3000	850 – 1500	800	1200	1200
THERMAL RESISTANCE °C/W	4.2* / 6.0	0.9	1.4	1.3	0.7	0.5

*For UV/DB

LuxiGen Multi-Color Products

LZ4 RGBW Series




TYPICAL PERFORMANCE	DOME LENS*		FLAT LENS		
LUMINOUS FLUX [LUMENS]	1000 mA	1200 mA	1000 mA	1500 mA	3000 mA
RED 623 nm dominant	180	215	110	160	240**
GREEN 523 nm dominant	215	235	180	220	380
BLUE 457 nm dominant	50	56	43	58	82
WHITE 6500K	315	360	285	370	630

* Also available in RGBA and RGB options

**Product performance at maximum rated current of 2500 mA

LZC RGBW Series

TYPICAL PERFORMANCE	DOME LENS*
LUMINOUS FLUX [LUMENS]	1000 mA
RED 623 nm dominant	475
GREEN 523 nm dominant	560
BLUE 457 nm dominant	130
WHITE 6500K	780

*Also available in RGBA and RGB options

LZP RGBW Series


TYPICAL PERFORMANCE	DOME LENS	FLAT LENS
LUMINOUS FLUX [LUMENS]	1000 mA	1000 mA
RED 623 nm dominant	1060	640
GREEN 523 nm dominant	1190	1060
BLUE 457 nm dominant	300	250
WHITE 6500K	2000	1900

LZ7 7-Color Series

TYPICAL PERFORMANCE	
LUMINOUS FLUX [LUMENS]	1500 mA*
RED 623 nm dominant	160
GREEN 523 nm dominant	220
BLUE 457 nm dominant	60
WHITE 6500K	370
	1000 mA*
AMBER 595 nm dominant	90
CYAN 500 nm dominant	120
RADIANT FLUX [mW]	
VIOLET 395 nm peak	1250

*Maximum current for individual die; maximum power dissipation per emitter is 20W

LuxiGen White Products





TYPICAL PERFORMANCE **LUMINOUS FLUX** [LUMENS]	**LZ1-SERIES** 1200 mA	**LZ4-SERIES** 1000 mA	**LZ9-SERIES** 700 mA	**LZC-SERIES** 1000 mA	**LZP-SERIES** 1000 mA
COOL WHITE 5500K/6500K; CRI 75	360	1050	1800	3000	5700
GALLERY WHITE 3000K; CRI 98, R9 99	—	650	1060	1800	3450

LuxiGen Single Color Products

LuxiGen UV Products




TYPICAL PERFORMANCE RADIANT FLUX [mW]	LZ1-SERIES 1000 mA	LZ4-SERIES 1000 mA	LZC-SERIES 1000 mA	LZP-SERIES 1000 mA
UV 365 nm peak	1680	4600*	CONTACT LED ENGIN	
VIOLET 385, 395, 405 nm peak	1570	6200	18,000	34,000

*Flat lens emitter

LuxiGen Infrared Products


TYPICAL PERFORMANCE RADIANT FLUX [mW]	LZ1-SERIES 1000 mA	LZ4-SERIES 1000 mA
INFRARED 850 nm peak	930 / 1350*	3600 / 5250*
INFRARED 940 nm peak	1350	5250

*Single Junction / Dual Junction product performance

LuxiGen Specialty Color Products


TYPICAL PERFORMANCE RADIANT FLUX [mW]	LZ1-SERIES 1000 mA	LZ4-SERIES 1000 mA
DEEP RED 660 nm peak	1050	4100
FAR RED 740 nm peak	705	2700
DENTAL BLUE 460 nm peak	1100	4200

LuxiGen Visible Color Products


TYPICAL PERFORMANCE LUMINOUS FLUX [LUMENS]	LZ1-SERIES 1500 mA	LZ4-SERIES 1000 mA
RED 623 nm dominant	260	700
GREEN 523 nm dominant	270	835
BLUE 457 nm dominant	68	195
AMBER 590 nm dominant	132*	520

*Product performance at maximum rated current of 1200 mA

LuxiGen Mounting Options

	DESCRIPTION	DIMENSION mm	MCPCB THERMAL RESISTANCE °C/W	CHANNEL CONFIGURATION
	LZ1 Miniature	ø 11.5	2.0	1-channel
	LZ1 Star	ø 19.9	1.5	1-channel
	LZ4 Star	ø 19.9	1.1 / 0.1	1-channel / 4-channel
	LZ7 Rectangular	38.3 X 31.2	0.1	7-channel
	LZ9 Star	ø 19.9	0.2	1-channel / 3-channel
	LZC Star	ø 28.3	0.6 / 0.1	1 to 3-channel / 4-channel
	LZP Star	ø 28.3	0.1	4-channel / 5-channel
	LZP Connectorized	ø 50.0	0.1	4-channel

LuxiGen Lens Options

	LZ4-SERIES 4-die TIR lens options	**LZ9-SERIES** 9-die TIR lens options	**LZC-SERIES** 12-die TIR lens options	**LZP-SERIES** 25-die TIR lens options
NARROW SPOT	—	—	9°	10°
SPOT	14° / 18°	17°	13°	13°
NARROW FLOOD	22°	26°	20°	20° / 21°
FLOOD	40°	39°	32°	32° / 35°
WIDE FLOOD	—	—	50°	47°

*For more lens options, please visit **www.ledengin.com/products/lenses**

LuxiGen Custom Solutions

In addition to our standard products, we also offer custom solutions tailored to specific needs and applications. Please contact **sales@ledengin.com** to discuss the best solution for your requirements.

LuxiGen High Power Emitters and Lenses

LuxiTune Dynamic White Light Engine

LED ENGIN

LED Engin, Inc., based in California's Silicon Valley, specializes in ultra-bright, ultra-compact solid state lighting solutions allowing lighting designers & engineers the freedom to create uncompromised yet energy efficient lighting experiences.

LuxiGen™ emitters in combination with our secondary optics families deliver industry-leading flux density with beam angles ranging from 9 to 50 degree. Our product portfolio covers a large range of colors, including whites, multi-color, IR and UV LEDs in a unique patented compact ceramic package.

Our LuxiTune™ series of tunable white light engines combine LuxiGen emitter and secondary optics with smart controls to deliver dynamic color control by precisely tuning along the black body curve. LuxiGen emitter in-source mixing ensures high quality beam required in high-end lighting applications.

The small size, yet remarkably 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.

04/17

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