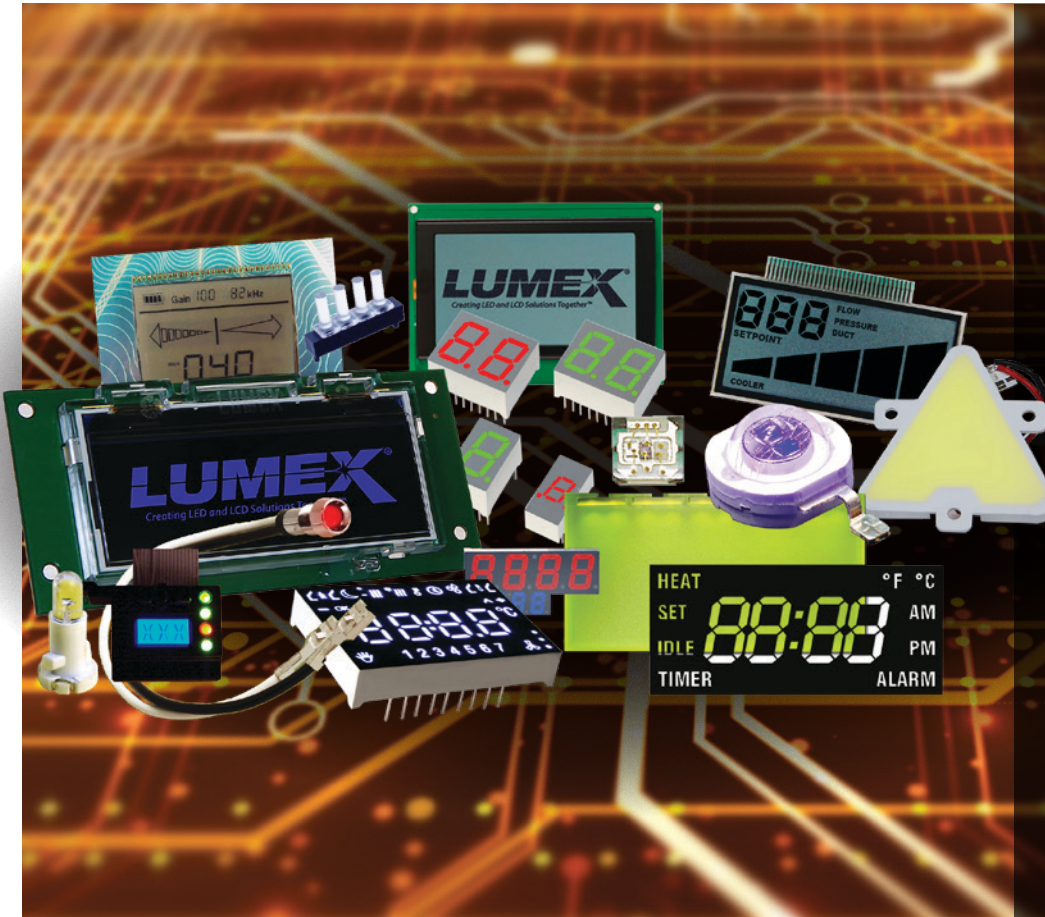


LUMEX®

Creating LED and LCD Solutions Together™



Lumex, a member of ITW, has been a global leader in the optoelectronics industry. With the broadest range of high efficiency, high performance LEDs and LCDs in the industry, Lumex provides thousands of standard products and specializes in semi-custom and custom designs.

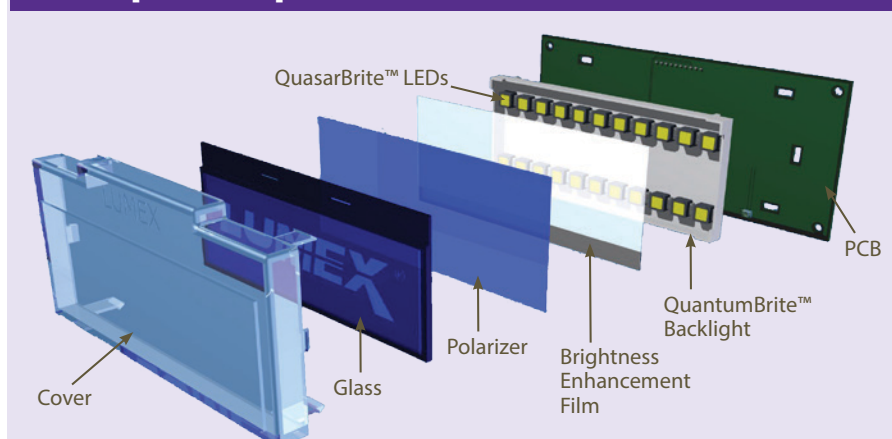
Lumex's optical range encompasses a wide spectrum including UV, visible and infrared wavelengths.

Lumex offers a broad offering of semi-custom, fully custom and plug-and-play solutions for LED/LCD displays, backlighting, light arrays, and LED indicators. Our engineering team has years of success in working with customers from initial design concepts through production-ready products, saving our customers time, design costs, and final assembly costs.

Examples include:

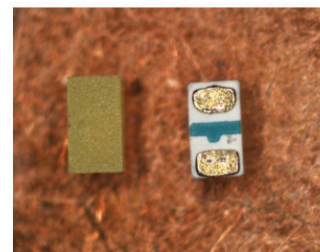
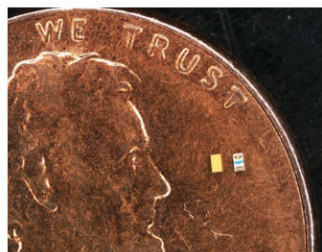
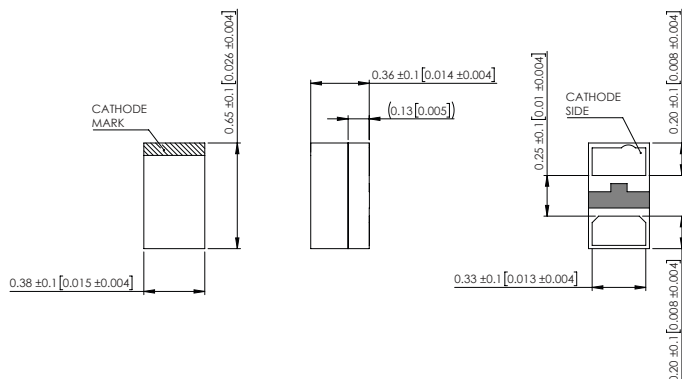
- Special graphics/colors on LCD displays
- Addition of backlighting or custom light pipes into one assembly
- Non-standard screen displays for LED and LCD displays and modules
- Varying characters lengths in LED arrays
- LED or LCD for high operating temperature up to 105°C

Multiple Components... One Product Solution



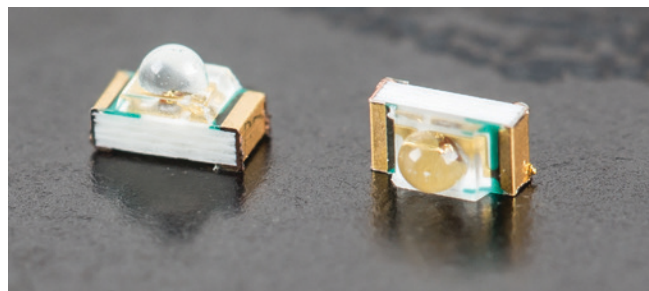
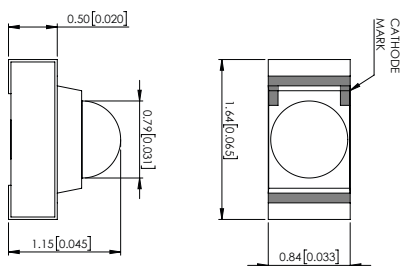
Smallest Single Color Surface Mount LED

PART NUMBER	Emitted Color	Chip Material	Peak Wavelength (nm)	Lens Type	Typ. Vf (V)	Intensity Typ. (mcd)	View Angle 2xTheta	If (mA)
SML-LX0201NWD-TR	White	InGaN	N.A.	Clear	2.6	55	110	5
SML-LX0201USBC-TR	Blue	InGaN	465	Clear	2.6	15	110	5
SML-LX0201UPGC-TR	Green	InGaN	520	Clear	2.5	100	110	10



Narrow Beam Surface Mount LEDs

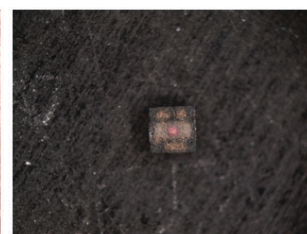
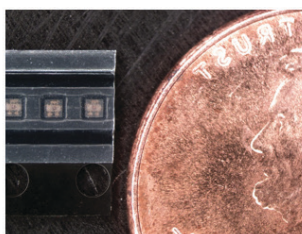
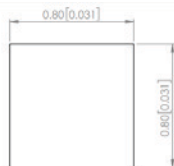
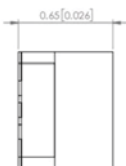
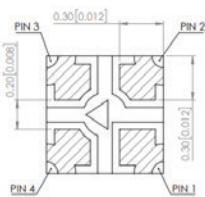
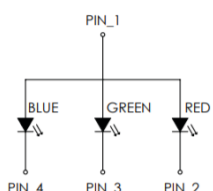
PART NUMBER	Emitted Color	Chip Material	Peak Wavelength (nm)	Lens Type	Typ. Vf (V)	Intensity Typ. (mcd)	View Angle 2xTheta	If (mA)
SML-LX1L0603SIC-TR	Red	AlInGaP	630	Clear	2.1	1600	75	25
SML-LX1L0603SYC-TR	Yellow	AlInGaP	585	Clear	2.1	1350	75	25
SML-LX1L0603UPGCTR	Green	InGaN	520	Clear	3.0	2135	75	25
SML-LX1L0603USBC-TR	Blue	InGaN	470	Clear	3.0	500	75	25



Smallest Full Color RGB Surface Mount LED

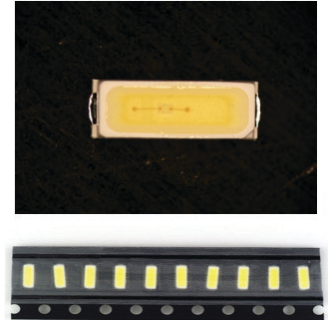
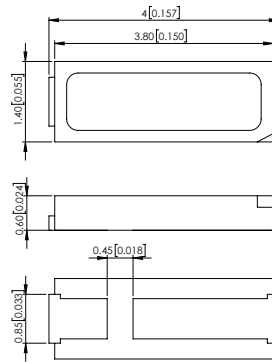
PART NUMBER	Emitted Color	Chip Material	Peak Wavelength (nm)	Lens Type	Typ. Vf (V)	Intensity (mcd)		View Angle 2xTheta	If (mA)
						MIN	MAX		
SML-LX0303SIUPGUSB	Red	AlInGaP	625	Clear	2.0	12	20	120	3
	Green	InGaN	525	Clear	2.9	61	104	120	5
	Blue	InGaN	465	Clear	2.9	9	26	120	5

POLARITY



4.0x1.4mm Ultra Bright White SMT LED

SPEC	SML-LX4014UWC-TR
Emitted Color	White
Chip Material	InGaN/GaN
Color Temperature	6500K
Lens Type	Water Clear
Min. Vf	2.8V
Max. Vf	3.4V
If(mA)	60
Intensity(Lm)	21
View Angle 2xTheta	120



IC Embedded RGB Surface Mount LED

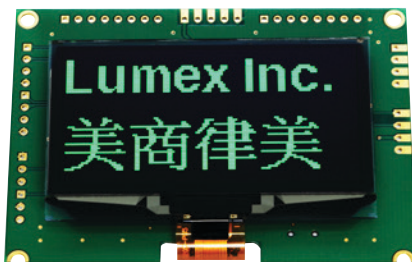


SMD-LX0707RGB-TR

ELECTRO-OPTICAL CHARACTERISTIC TA=25°C

PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
SUPPLY VOLTAGE	VDD	-	5	-	V
INPUT VOLTAGE(HIGH)	VIH	0.7VDD	-	VDD	V
INPUT VOLTAGE(LOW)	VIL	0	-	0.3VDD	V
PEAK WAVELENGTH	R	-	630	-	nm
	G	-	520	-	
	B	-	470	-	
LUMINOUS INTENSITY	R	72	-	180	mcd
	G	180	-	360	
	B	28.5	-	72	
VIEWING ANGLE	-	120	-	2x theta1/2	If=5mA
EPOXY LENS FINISH	WATER CLEAR				

ezDisplayOLED



ezDisplay Dot Matrix LED Display



SKU	Description
LOD-H12864GP-W-UR	128 x 64 Pixels, White OLED
LOD-H12864GP-Y-UR	128 x 64 Pixels, Yellow OLED
LOD-H12864GP-G-UR	128 x 64 Pixels, Green OLED
LOD-H12864GP-B-UR	128 x 64 Pixels, Blue OLED

Product Family	Descriptions
ezDisplay LED DotMatrix Indoor Family	64x32 RGB LED Dot Matrix, options for 3mm, 4mm or 5mm Pitch. Perfect for Indoor use. Available addons: UART Interface, USB power, 1.5A current clamp, USB, BLE 4.0 and 2.4GHz RF.
ezDisplay LED DotMatrix Outdoor Family	32x16 RGB LED Dot Matrix, options for 8mm or 10mm Pitch. Designed for Outdoor use. Come with UART Interface.
ezDisplay LED DotMatrix LDM-968-P3-UR	96x8 RGB LED Dot Matrix, 3mm Pitch, Indoor, come with UART Interface

Product Family Guide

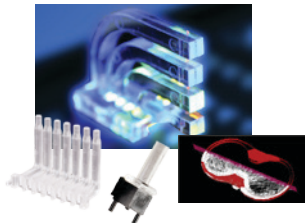


Light Emitting Diodes (LEDs)

- SMD and Through-Hole
- Panel Mount Indicators
- LED Displays
- Arrays and Light Bars
- Infrared and Ultra Violet

Custom Capabilities

- High Temp LED Displays (+105°C)
- Custom TPX Molds
- Molded Arrays
- Chips on Board
- Lead Forming and Lensing
- Custom LED Housings
- Color and Brightness Matching



Light Pipes

- Right Angle
- Vertical Arrays
- * Single or Multiple Positions

Custom Capabilities

- 3D Modeling
- Ray Tracing
- Rapid Prototypes
- Custom Shapes and sizes

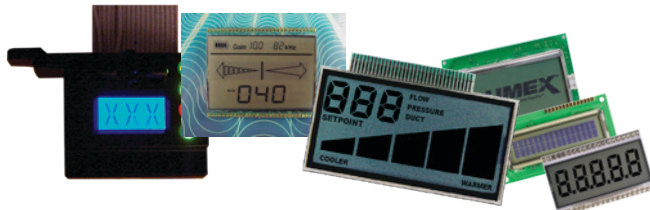


High Power LEDs

- Round and Square Packages
- Single Color or RGB

Custom Capabilities

- Arrays
- Custom Lighting Solutions



Liquid Crystal Displays (LCDs)

- Extreme Temperature LCDs
- Graphic LCDs
- Character LCDs
- Numeric LCDs

Custom Capabilities

- Custom Icons and Characters
- High Contrast, Negative Image
- Chips on Glass
- Chip on Flex
- Full User Interface Integration
- Connectors and Switches



LED Backlights

- Chips On Board
- Edge Lit

Custom Capabilities

- HB Technology Backlights
- Brightness Enhancing Films
- Light Panels
- Custom Shapes and sizes

Industrial Control



Medical



Transportation



Communications



Security



LUMEX®
Creating LED and LCD Solutions Together™

ITW Electronic Component Solutions

North America

425 N. Gary Avenue
Carol Stream, IL 60188
Tel: (800) 278-5666
Fax: (630) 315-2152

www.lumex.com

Asia

3F, No. 972, Sec 4
Chung Hsing Road, Chu Tung
Hsin Chu County, Taiwan
Tel: +886-3-582-1124
Fax: +886-3-582-1154