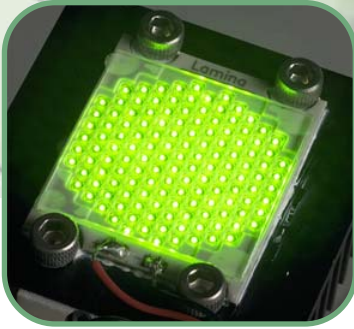


Data Sheet



LED Light Engines

Light emitting diodes (LEDs) offer many advantages over traditional incandescent lamps, including much lower energy consumption, dramatically longer lamp life, precision color control, and the absence of radiated heat. Until now, however, device packaging has severely limited the brightness levels that could be realized in small packages. Our multi-layer Low Temperature Co-fired Ceramic on Metal (LTCC-M) packaging technology solves this problem.

Our light engines are highly engineered LED arrays, designed to provide light at a specified intensity, wavelength, and viewing angle. Our technology enables the LED dies to be attached directly to an integral metal core, which provides excellent thermal performance. This, in turn, allows the LED dies to be mounted much closer together than is possible using traditional packages. The result is a light engine with the maximum light output in the smallest possible package.

Current standard packages include 134-cavity and 7-cavity arrays, ready for direct mounting into your circuitry. Custom designs can be made to a wide variety of shapes, sizes, colors, and intensities.

BENEFITS OF OUR CERAMICS LIGHT ENGINES INCLUDE:

- * HIGH LIGHT OUTPUT IN A SMALL PACKAGE
- * ALL POPULAR VOLTAGES AVAILABLE
- * CHIP ON BOARD PACKAGES
- * WATERPROOF AND RIGID PACKAGE
- * SINGLE COLOR OR RGB CONFIGURATIONS
- * CAN BE PROVIDED WITH ANY AVAILABLE LED DIE
- * SURFACE MOUNT OR LEADED CONFIGURATIONS

We are currently developing light engines using LTCC-M technology for **signage, architectural, decorative, retail, traffic control, telecom, and automotive** applications.



Data Sheet



LED LIGHT ENGINE CHART

Array Package Style	Part #800-0024	Part #800-0021	Part #800-0001	Wavelength (nm)
Description	7-cavity Array	7-cavity Array	134-cavity Array	
Interconnect Configuration	Series	Parallel	Parallel	
Available Colors				
Red	Yes	Yes	Yes	624-635
Amber	Yes	Yes	Yes	610-620
Traffic Signal Green	Yes	Yes	Yes	500-510
Green	Yes	Yes	Yes	520-540
Blue	Yes	Yes	Yes	465-475
IR	Yes	Yes	Yes	930-950
UV	Yes	Yes	Yes	390-410
White	Yes	Yes	Yes	
RGB	Yes	Yes	Yes	
Flux Output Range (lumens)	Up to 840 (with 21 W of power consumption)	Up to 840 (with 21 W of power consumption)	Up to 5360 (with 134 W of power consumption)	
Reflector Angle	45° – 160°	45° – 160°	45° – 160°	
Maximum Heat Sink Temperature	85° C	85° C	85° C	