



LED Illumination



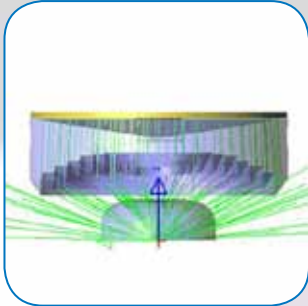
TELEDYNE
MICROELECTRONIC TECHNOLOGIES
A Teledyne Technologies Company



**ENGINEERING LIGHT
FOR BETTER PRODUCTS**

ENGINEERING LIGHT FOR BETTER PRODUCTS

For over 20 years, we have led the industry in designing and manufacturing high efficiency, high reliability LED illumination devices.



Optimize SWAP: Size, Weight, Power and Performance

Our dedicated team of scientists and engineers work with you to optimize your size, weight and performance requirements through:

- Optical modeling
- Circuit layout design
- Mechanical analysis
- Materials selection
- Thermal and power management analysis



Services

At any phase of your design, we work with you to provide a cost effective, innovative solution to your solid state lighting needs. Reliability and producibility are designed into every product, achieving state-of-the-art quality.

Advanced Technologies

We utilize a full array of advanced technologies to achieve optimal packaging for your circuit:

- SMT - Surface Mount Technology
- COB - Chip on Board
- Flip Chip/Flip Chip on Flex
- WLP - Wafer Level Packaging
- CSP - Chip Scale Packaging
- SIP - System in Package
- Stud Bumping
- Application specific optics



Quality

Every employee is committed to producing the highest quality product. We are a DoD DMEA Microelectronics Trusted Source, accredited for Microelectronics Packaging, Assembly and Test Services and maintain the highest level industry certifications:

- AS9100
- ISO 9001:2008
- MIL-PRF-38534, Class H and K

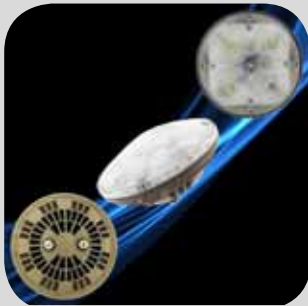


Contact our team to find out how we can help solve your toughest technology challenges.



Alphalight™ LED Backlights for LCDs

- Ultrathin design available
- Excellent brightness and uniformity
- Compact, rugged, lightweight
- High optical efficiency and long life
- Available in monochrome white, green, red, blue and full color RGB
- Custom designs available
- Patented design and advanced optical architecture



Alphabeam™ LED Landing/Taxi Light **NEW**

- FAA - PMA for specific certified Part 23 aircraft models
- 170K Mean Beam Candlepower
- Drop-in replacement for traditional PAR 36 lamps
- Works on both 14V and 28V systems
- Built in thermal protection
- Meets all applicable environmental requirements of RTCA DO-160E
 - Ruggedized for aircraft shock, vibration and temperature ranges



Photon Engine™ LED Collimating Illuminator

- Collimated light output 40° - 50° FWHM
- Efficient thermal design
- Available in monochrome, UV and full color RGB
- Custom options available
- Patented design



Non-Imaging Optics for LEDs

- Side-emitting
- Collimating
- Elliptical
- Optics use total internal reflection
- Patented designs
- Licensing available



Testing and Screening

- Luminance and flux measurements
- Goniometer measurements
- Spectral characterization
- Image analysis
- Life testing
- Environmental testing

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