

## APPLICATIONS AND MARKETS

- TRANSPORTATION
  - IN-VEHICLE
  - AVIONICS
  - MARINE NAVIGATION
- MEDICAL
  - AMBULATORY
  - PATIENT MONITORS
  - MEDICAL IMAGING
- INDUSTRIAL
  - MAN/MACHINE INTERFACES
  - INTRINSICALLY SAFE SYSTEMS
- POINT OF SALE
  - INFORMATION KIOSKS
  - ATMS
  - ORDER VERIFICATION KIOSKS
- MILITARY
  - RUGGED PC
  - GROUND VEHICLES
  - AVIONICS



Luminary Optics  
1800 NW 169<sup>th</sup> Place, Suite B-250  
Beaverton, OR 97006  
503 533-8939  
503 880-2379  
[www.luminaryoptics.com](http://www.luminaryoptics.com)

Display  
Enhancements



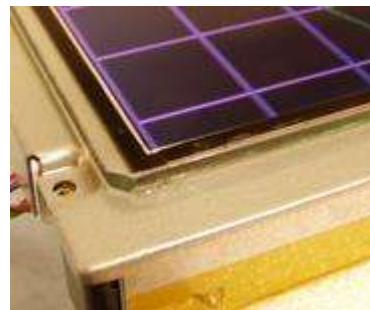
# Luminary Optics

## SPEC-STANDARD APPROACH TO DISPLAY ENHANCEMENTS

Luminary Optics is the premier display enhancement company. As a supplier of optical bonding and display enhancements, Luminary offers a wide range of products and services that increase the performance of displays, making them perform in the most demanding applications. Our unique approach to the industry is what sets us apart from the others. Luminary Optics follows the philosophy of "Spec Standards". Simply put, Luminary engineers unique solutions for our customers by creating designs built to their "specs" but by utilizing "standard" optical components and materials. Our experience in improving the brightness and contrast performance of a flat panel display spans over 15 years.

### IMPROVING CONTRAST AND BRIGHTNESS BY REDUCING REFLECTIVE LOSS BY IMPEDANCE MATCHING LIGHT WHICH INCREASES THE SIGNAL TO NOISE RATIO-

#### Optical Bonding-



- Reduces Specular Reflection to less than .5%
- Increases Extrinsic Contrast by 10 times.
- Ruggedizes the display
- Eliminates moisture condensation and contamination under the cover glass / touch screen
- High adhesion passes Mil rated Rapid Decompression test
- Never Yellow- UV stable

#### Glass and Film Enhancements Options-



- Viewing Angle Correcting Film
- DuraCoat AR Glass
- Custom PCAP Touch Screens
- ITO EMI Filters
- Mesh EMI Filters
- ITO Heaters
- Circular Polarizing Filters
- Screen Printing



### Featured Optical Technologies-

#### -DuraCoat



DuraCoat AR, is a uniquely formulated window coating specifically developed for the rugged outdoor applications. DuraCoat AR front coating is the most durable anti-reflecting (AR) coating with less than .4% of specular reflectance. Moreover, DuraCoat AR is oleophobic and hydrophobic and has an 8H pencil hardness which can tolerate abrasions, with up to 450,000 rubs without lifting or damage to the coating. DuraCoat AR will also survive a Mil-rated 90 day salt-fog test as well as a variety of other accelerated acid spray tests.

#### -Viewing Angle

- Increases both color and brightness viewing angle
- Corrects viewing cone issues for display set to Portrait Mode
- Increases minimum CR from 10:1 to 30:1
- Increases effectiveness of active and passive brightness techniques
- Improves color saturation at off angles
- Corrects Birefringence
- Gives TN and WVA-TN LCD cells the view angle of IPS type displays



#### Optical Engineering

Luminary Optics understands the customer's display goals and will engineer solutions using advanced display optics. Our design engineers have many years of display and optics experience to create solutions for demanding applications

#### Hi-Rel / Mil / COTS

Luminary Optics has been supplying display solutions specially designed to meet the demanding specifications for Military and COTS Military applications. Designs include NVIS, EMI Mesh, EMI ITO, ITO Heaters and full backlight improvements.

#### Team Partners

Luminary Optics partners offers advanced custom products and enhancements through a team of support partners with years of experience. They provide custom displays including dual mode sunlight/NVIS displays in ultra-thin packages. Custom filters include Circular Polarizers and custom coatings are available.