Sensor and Scanner Window Solutions

Imaging ● 3D Metrology and Mapping ● Obstacle Avoidance

Optical and image sensor use is on the rise with growing applications in industrial 3D metrology, machine vision, automotive obstacle avoidance, security and surveillance, document and 3D scanning, gesture recognition and other digital imaging applications. Abrisa Technologies’ rare combination of performance coating design and volume glass fabrication offers the OEM an opportunity for a Total Solution for their sensor and scanning windows; an excellent balance of optical coating performance and economies of scale.

Sensor and Scan Window Coatings:

- Anti-Reflection Visible (425nm-675nm) Ravg < 0.5% (AOI = 0-30º)
- Anti-Reflection Visible-NIR (425-950nm) Ravg < 1.0% (AOI = 0-30º)
- Anti-Reflection SWIR (900-1700nm) Ravg < 1.0% (AOI = 0-30º)
- Broad Angle Anti-Reflection Laser Line Ravg < 0.5% (AOI = 0-50º)
- Ultra-low Anti-Reflection NIR Diode Ravg < 0.1% (AOI = 0-30º)
- Cut Off, IR Blocking Filter/Mirror Visible Transmission, NIR Blocking
- Cut On, VIS Blocking Filter, Mirror Visible Blocking, NIR Transmitting

Damage Resistant and “Tough” Environment Solutions:

Many applications for sensors and scanners are industrial or for field use where uptime and reduced product maintenance are not just desirable, but a necessity. Abrisa Technologies offers coated sensor and scanner window solutions for these “tough” use environments as well, whether they be outdoors in sunlight, on the seas or on the road, installed in a hot and humid factory, have high traffic interface contact or constant exposure to dirt and other contaminants.
Visible AR coating for full color LCD & OLED Displays
- Ravg < 0.5% (AOI = 0-30º) 425-675nm
- Also available with oleo/hydrophobic properties

Sensor and Scanner Window Solutions

Imaging ● 3D Metrology and Mapping ● Obstacle Avoidance

VIS-NIR coating compensates for weak diode signal
- Ravg < 1% 425-900nm & R < 0.5% NIR (AOI = 0-30º)
- Also available with oleo/hydrophobic properties

Coating for machine vision & spectral analysis
- Ravg < 1.0%/1.5% 900-1700nm (AOI = 0/30º)
- Also available with oleo/hydrophobic properties

Options

- Custom V-Coat, Multi-band, Broadband AR
- AR Coatings to MIL-C-14806 A
- ITO/MITO for EMI Shielding, Heater, LC Devices
- Custom SWP, LWP, Bandpass, UV & NIR Blocker
- Broad/Narrowband Scanning Mirror Coatings
- Deposition onto Filters, Silicon & Other Materials
- Autoclavable, Bio or Chemically Compatible

Sensor & Scanner Window Solutions

Security and Surveillance ● Machine Vision ● Displays

Coatings:
- Fabrication to Shape & Size
  - Cut & Seam or Circle Ground to Size & Shape
  - Precision CNC - Holes, Bevels, Steps, Notches
- Damage Resistant Substrates
  - HIE™ Aluminosilicates
  - AGC Dragontrail™
  - Corning® Gorilla®
  - SCHOTT AS 87
  - Chemically Strengthened Soda Lime Float
- Low Expansion Chemically Resistant Substrates
  - SCHOTT Borofloat® 33
- Ultra Thin and Wafer Substrates
  - AGC EN-A1
  - Corning® 0211 & Eagle XG®
  - SCHOTT AF32, D263® & AS 87

Substrates:
- Fabrication to Shape & Size
  - Cut & Seam or Circle Ground to Size & Shape
  - Precision CNC - Holes, Bevels, Steps, Notches
- Damage Resistant Substrates
  - HIE™ Aluminosilicates
  - AGC Dragontrail™
  - Corning® Gorilla®
  - SCHOTT AS 87
  - Chemically Strengthened Soda Lime Float
- Low Expansion Chemically Resistant Substrates
  - SCHOTT Borofloat® 33
- Ultra Thin and Wafer Substrates
  - AGC EN-A1
  - Corning® 0211 & Eagle XG®
  - SCHOTT AF32, D263® & AS 87

Easy-to-Clean & Anti-Fog Solutions:
- Oleo/Hydrophobic Options
- ITO Heater, HTAF Anti-Fog Solutions

Graphics & Bus Bars:
- Color Matched Epoxy Ink
- Non-Conductive Ink
- High Temperature Frit Ink
- Deadfront Ink - Partially Transmissive
- Infrared IR Transmitting Ink
- Silver Epoxy, Silver Frit, CrNiAu Bus Bars