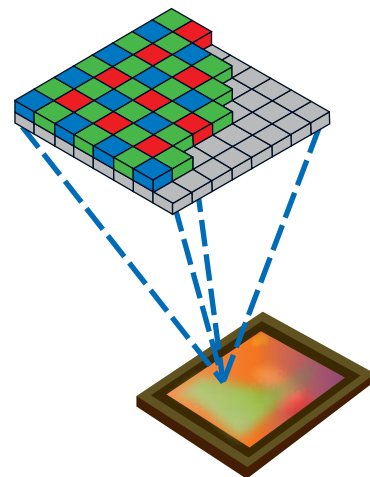


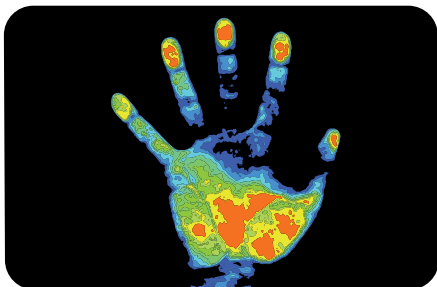


PixelTec™ patterned optical coatings combine patented microlithography expertise with state-of-the-art coating technology to deliver precision patterned optics. Pioneered by Ocean Thin Films, exclusive PixelTec technology enables patterning a combination of dielectric, metal, and conductive coatings on a single substrate – creating simplified optical devices with superior light management. This process is scalable to mass production with over 2 million PixelTec patterned optics delivered. PixelTec patterned coatings are used to enhance performance in a multitude of medical, defense, and industrial applications – enabling next-generation optical devices that are more compact, robust and cost-effective.



Precision Micron-Scale Patterning

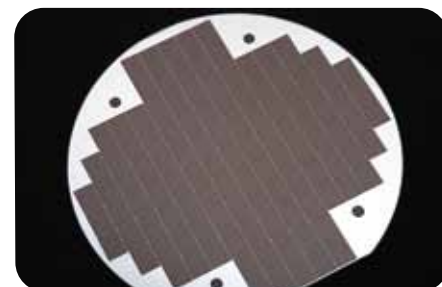
Applications



Biomedical Imaging



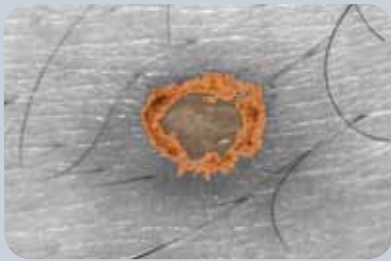
Reticles and Targeting



Wafer Level Coating

EXAMPLES

Multispectral Sensors



- Patterned pixels & lines
- Custom wavelenth bands (*UV, VIS, NIR, SWIR*)
- Aperture mask

Gradient Filters



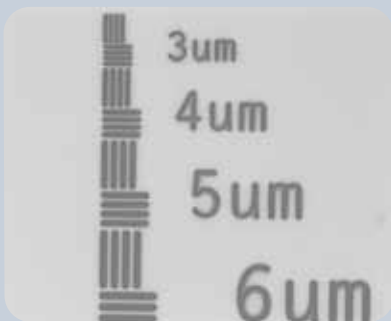
- Fine quasi-stochastic pattern
- Smooth fades & mixing
- Color mixing, dimmer, color temp

Precision Reticles



- Custom reflective & transmissive designs
- Scaled alignment & range-finding
- Micron scale precision

Patterned ITO / IMITO



- Transparent conductive coating
- EM/RFI shielding
- Counter electrode

Customized Options

1. Coatings:

- Dichroic (bandpass, short-wave pass, long-wave pass, other dielectrics)
- Metallic (high reflectance, dark absorber, other metals)
- Transparent Conductive (ITO, IMITO)

2. Patterns:

- Custom shapes (lines, dots, pixels, etc.), feature sizes, apertures, artwork

3. Substrates:

- Material, size, thickness

4. Options:

- Special handling, finishing, testing, packaging

Benefits



- Micron scale patterning – intricate features, shapes, sizes
- Multi-filter arrays / spectral bands on a single substrate
- UV, Visible, NIR, and/or SWIR wavelengths
- Custom engineered coatings & spectral properties
- Dielectric, metallic, and transparent conductive (ITO/IMITO) coatings
- Subpixel alignment precision
- Semiconductor grade handling & cleanliness
- Proven scalability with > 2 million precision patterned optics delivered

Applications



- Multispectral sensing & imaging
- Custom CCD and CMOS sensors & cameras
- Non-invasive biomedical imaging
- Enhanced surveillance & vision systems
- Precision reticles & alignment patterns
- Patterned pixels & apertures
- Focal Plane Arrays (FPA)
- Color mixing & dimming
- Variable / gradient filters
- EMI / RFI shielding
- Calibrated optical slits & pinholes
- Patterned beamsplitters & gratings
- Integrated custom optics



See what else
PIXELTEC
innovative patterned optical coatings
can do for you

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