



Consumer Solutions

Latest News and exclusive Insights

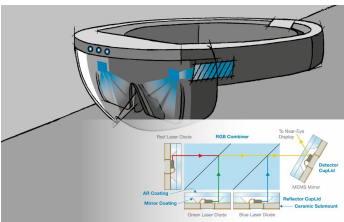
Wafer-level Optical Components!

Some applications prioritize precision, while others emphasize miniaturization. With our innovative wafer-level process for optical components, our customers can now enjoy the best of both worlds!



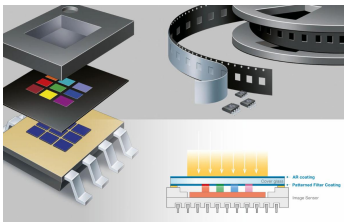
Polarizing Beamsplitter for Wearable Devices

Miniaturized PBS with high light throughput and zero non-functional area.  
[> learn more](#)



RGB Combiner for Laser Beam Scanning Displays

Compact RGB combiner with precise alignment for AR smart glasses.  
[> learn more](#)



Ultra-Thin Ambient Light Sensor Filter

Customized thin-film filters for accurate color sensing in any light.  
[> learn more](#)

Consumer  
Optical Solutions for  
Mobile Devices



Optical Solutions for Miniaturization

Customized optical thin-film coatings and components are key enablers in today’s consumer electronics industry. They ensure high performance in optical systems and support the growing demand for compact, reliable solutions in mobile devices.

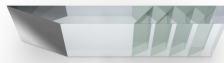
Our expertise in thin-film coating processes enables the design and production of optical components and subassemblies at high volumes, providing the foundation for tailored solutions that meet the requirements of modern consumer applications.

Further insights into how these technologies shape the consumer market can be found in our brochure.

Download Brochure

Waveguides and Combiners

Waveguides and Combiners for wearable devices, pico projectors, augmented reality (AR) glasses, and intra-oral-scanners.



We address the constraints of lumens, weight, and size in these systems, as well as challenges such as stray light and ghosting that result from design trade-offs and manufacturing limitations. By reinventing the process flow for thin-film coated assemblies, both reflective and diffractive waveguides can be produced reliably at industrial scale.

Learn more



Contact our Expert!

Got questions or are you looking to discuss a project? **Vivian Zhang**, our specialist, is happy to support your next innovation.

[vivian.zhang@materion.com](mailto:vivian.zhang@materion.com) | +86 139 1683 3044