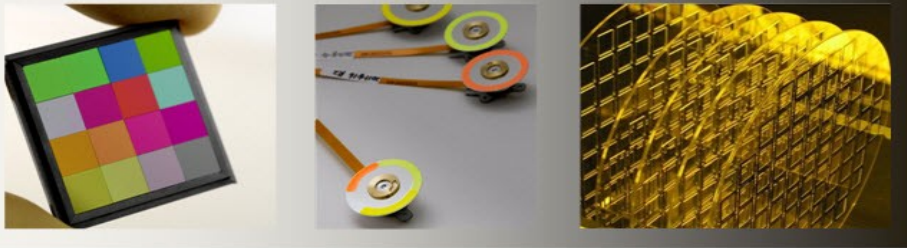




Optical Innovation News

Volume 3, Issue 2

May 2015



Low Angle Shift Coatings - New Technology Delivers

Optical systems frequently use filters to increase signal-to-noise by isolating wavelength bands containing information from a broad background of other signals (the noise). Optical filters which limit the wavelength response of a system are frequently called Band Pass filters. These filters can have a nearly infinite variety of attributes in terms of the wavelengths of light they transmit and suppress depending on the optical system in which they are deployed.

Depending on the level of performance and wavelengths of interest, various physical mechanisms can be used to produce a band pass filter such as: materials dependent absorption, scatter, dispersion and mechanical selection, optical interference, and induced transmission. Each of these filtering mechanisms has its place in optical instrumentation. As a general rule though, the all dielectric optical interference filter is the most cost effective solution for fixed response, high throughput, robust, optical systems suitable for commercial electronic applications.

[Read More](#) to see how our high effective index filters using Materion's proprietary and patent pending technology exhibit far superior performance in the NIR when compared with standard interference filter approaches.

Hubble Celebrates Silver Anniversary

It's hard to believe but the Hubble Space Telescope was launched on April 24, 1990 and is now celebrating its 25th year in space! Materion is proud to have supported HST since the early 1990s. It is safe to say that almost any Hubble image you see published in the media was taken through a Materion filter. Following is a recap of some of the highlights of our involvement with four Hubble projects.

- Camera Filters for the WFPC2
- Upgrading the WFPC2 to WFC3
- Enhanced Performance with ACS Filters
- Far Ultraviolet Filters for STIS

Materion has a space telescope heritage extending back 25 years and is excited to be supporting future space endeavors with our products and services. [Read More...](#)

The Internet of Things

The concept of an interconnected world, driven by trillions of embedded sensors, is already well underway. According to ABI Research, the number of interconnected wireless devices was over 16 billion in 2014, up 20% over 2013. By 2020, they are predicting over 40 billion interconnected devices, with a lot of that growth coming from sensors and sensor hubs. Thanks to increased volumes and improved manufacturing methods, sensor costs have dropped considerably. Many of these sensors are optical sensors such as those fabricated by Materion Precision Optics. [Read More...](#)

Come See the Show!

At the SPIE DSS April conference in Baltimore, Materion presented a Product Demo on its new family of [ArrayTec™ filter arrays](#). It offered the opportunity for attending scientists, researchers, program managers and company reps to view the advantages of the three unique levels of filter array options offered. The demo will be repeated at the [Sensors Expo & Conference](#) in June. Plan to join us there!

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Face to Face

Meet Robert Legg, Commercial Business Development Manager at Materion Precision Optics. Among Rob's responsibilities is developing long term global relationships with established companies, as well as startups, in order to secure business opportunities within emerging technologies. As part of that mission, he enjoys working closely with the team to create innovative strategies that provide competitive differentiation within their markets.



While officially located at the Westford, MA facility, Rob travels extensively and conducts business across the globe. He reports to Michael Zasowski, Sr. Director of Business Development, and works with teams in the US and Shanghai facilities as well as with sales managers throughout Europe, Japan, Taiwan, and Korea. [Learn more about Rob...](#)

Events - Join us!



June 9-11,
Long Beach Convention Center
Booth # 128



Sept 8-10,
The Claremont Hotel
Berkeley, CA