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PRECISION OPTICS

Arraytec™ Filter Arrays

ArrayTec™ Filter Arrays

The Challenge

The Aerospace and Defense industries are evolving and demanding more functionality in satellites along with reduced overall size. In the past, custom filter arrays were only available for larger satellites that were built for multi-task configurations. The only choice for smaller commercial satellites was discrete, one wave length filters, due to size, cost and lead times.

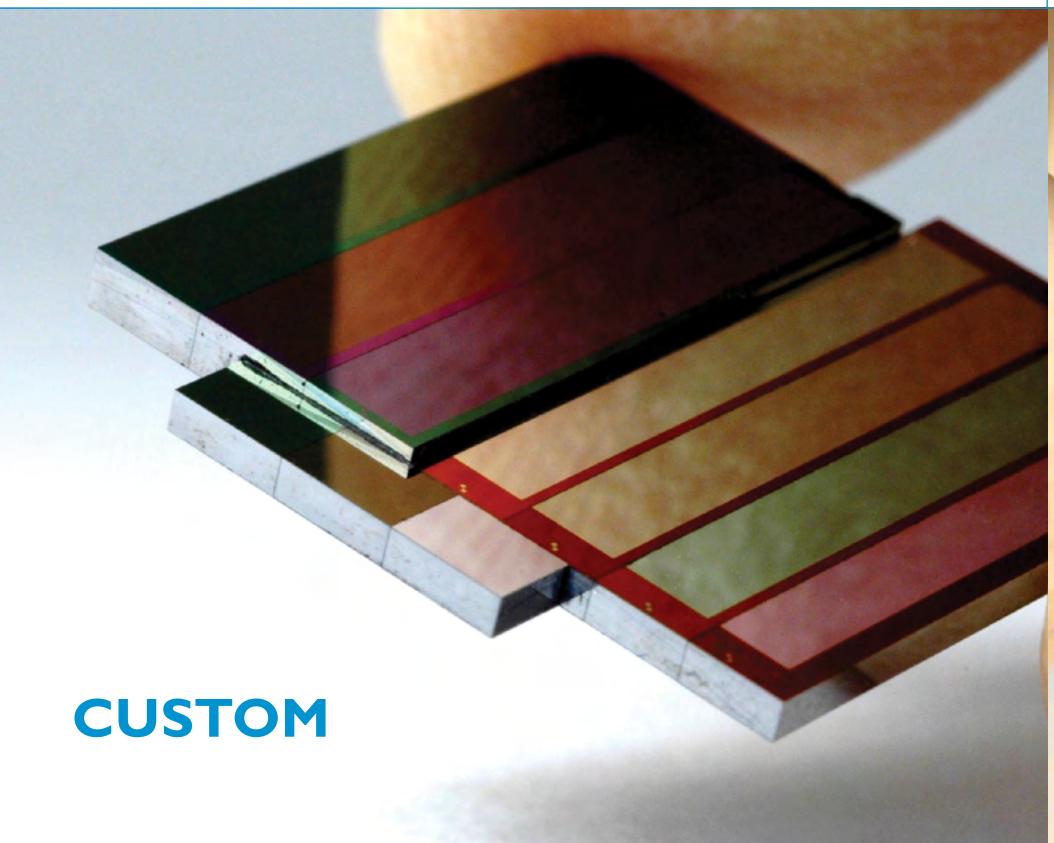
The Solution

Materion Precision Optics operates over 100 coating chambers worldwide. Our expertise is based on 40 years of optical experience. We are by far the leading manufacturer of complex optical filters in the industry. By applying this experience and advanced micro-dicing and micro-assembly technologies, we created a new line of filter arrays. ArrayTec™ Filters open the door for additional industries to take advantage of multi-spectral filters at a competitive cost and lead time. The Standard and Select ArrayTec™ Filters are offered for picosats, unmanned aerial vehicles and commercial fields including spectroscopy, multispectral sensing and color matching.

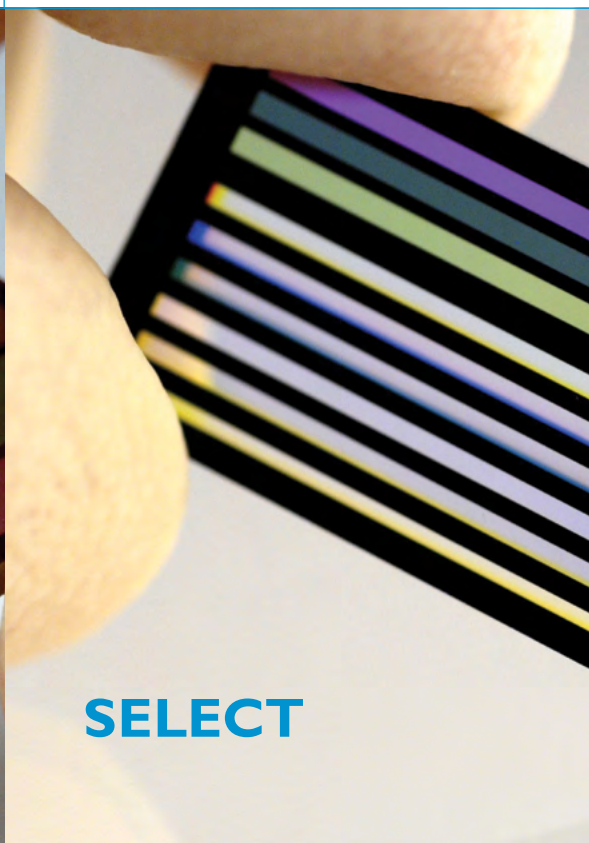
BENEFITS

Materion has a wide range of design, deposition and test competencies from the ultra violet to the long wave infrared; from dichroics to ultra narrow bandpass filters.

- Heritage of 40 years of Filter Array Experience
- Low Defect, Wafer Coatings
- Large Area Optical Coatings
- High Volume Manufacturing
- High Precision Micro-dicing and Assembly
- Precision Microlithography
- Thin Film Modeling & Design
- Magnetron & Ion Beam Sputtering
- Ion Assisted Deposition



CUSTOM



SELECT

Materion … Delivering New Levels of Innovation

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CUSTOM

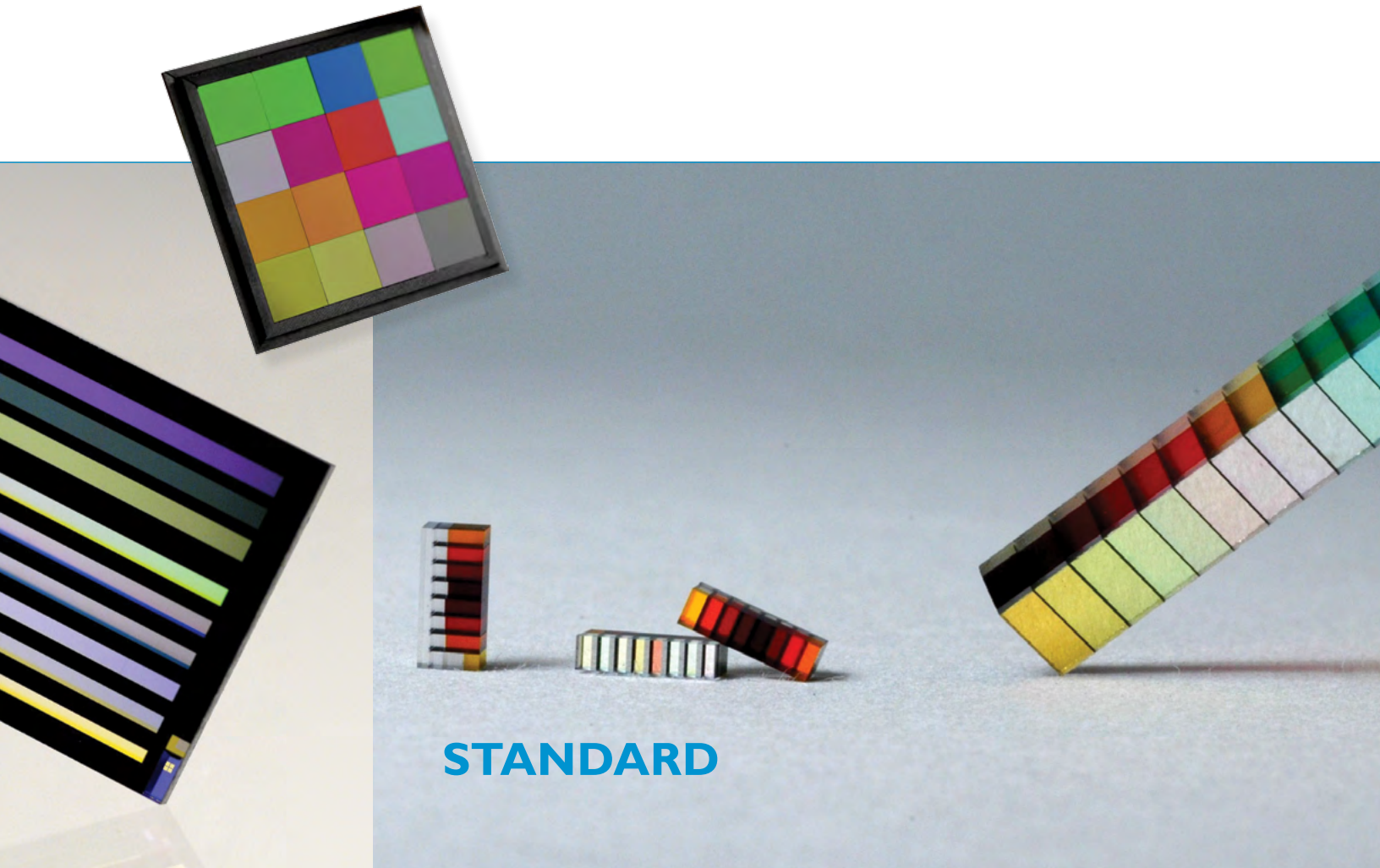
Custom ArrayTec™ provides endless possibilities. We will work with you to create the best possible option for your application. Our scientists are experienced in stray light reduction coating design and can customize each filter to the exact specification necessary from UV to LWIR. Custom ArrayTec™ Filters can utilize multiple aperture masks and provide maximum stray light control. They are available in a variety of shapes and sizes, including the butcher block and checkerboard pattern.

SELECT

Perfect for mid-size or prototype satellites or high volume applications, the **Select ArrayTec™** provides everything you need at just the right cost. By narrowing filter choices, we deliver multi task filters with shorter lead times without sacrificing quality or service. Select ArrayTec™ uses the same technology as the Custom ArrayTec™ to provide superior stray light and crosstalk reduction and enhanced cosmetics. Choose one aperture mask and up to 8 filters from our selection of standard VIS/SWIR imaging bands. Filters can be sized to meet your specifications.

STANDARD

Maximize your application by replacing your discrete filter with a **Standard ArrayTec™** Filter. Increase your functionality with this 8 band filter that reduces the size and weight of your current filter. These filters are designed for smaller multi-task or commercial satellites but are equally useful in a variety of other applications. Standard ArrayTec™ Filters are pre-assembled with our 8 standard 1mm wide imaging bands and available with an overall size up to 2" square. With the competitive cost and lead time better than most discrete filters, there is no reason not to use the Standard ArrayTec™ Filter.



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MATERION CORPORATION
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MATERION PRECISION OPTICS is a leading manufacturer and supplier of optical filters and custom thin film coating services. We use innovative technologies to produce a broad array of products including complex optical filters, filter arrays, lens coatings, gesture recognition filters & sensors, flexible thin film assemblies and projection display components. We offer solutions for diverse markets including defense, commercial, space, life sciences, medical, astronomy and thermal imaging.