

Powering the 21st Century with Integrated Photonics

The **American Institute for Manufacturing Integrated Photonics (AIM Photonics)**, is an industry driven public-private partnership whose goal is to emulate the dramatic successes experienced by the electronics industry over the past 40 years and transition key lessons, processes, and approaches to the photonic integrated circuit (PIC) industry.

AIM Photonics Members benefit from an ecosystem dedicated to advancing integrated silicon photonics in the 21st century.

Benefits include:

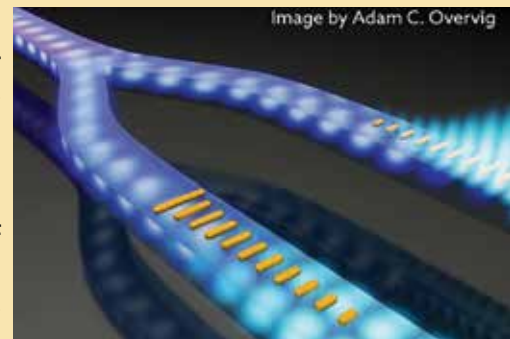
- Collaboration with Industry, Government, and University Leaders
- Access to state of the art 300mm Fabrication Facility
- World leading PDK/MPW programs
- New Test Assembly & Packaging Facility (TAP)
- Joint project development awards
- Cost effective low risk technology enablement
- DoD-funded project awards



AIM Photonics is headquartered at SUNY Polytechnic Institute's Albany NanoTech Complex. SUNY Poly's state-of-the-art 300mm cleanroom is pictured above.

Why Integrated Photonics?

Integrated Photonics, the use of light for applications traditionally addressed through electronics, is finding use in a wide range of areas including: telecommunications, laser based radar, data communications, sensing, and many others. Integrated photonics dramatically improves on the performance and reliability of electronic integrated circuits while significantly reducing size, weight, and power consumption.

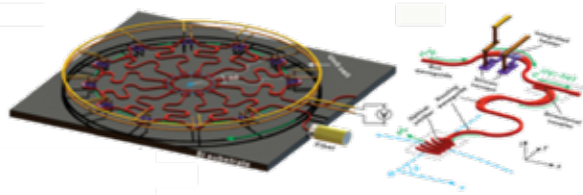
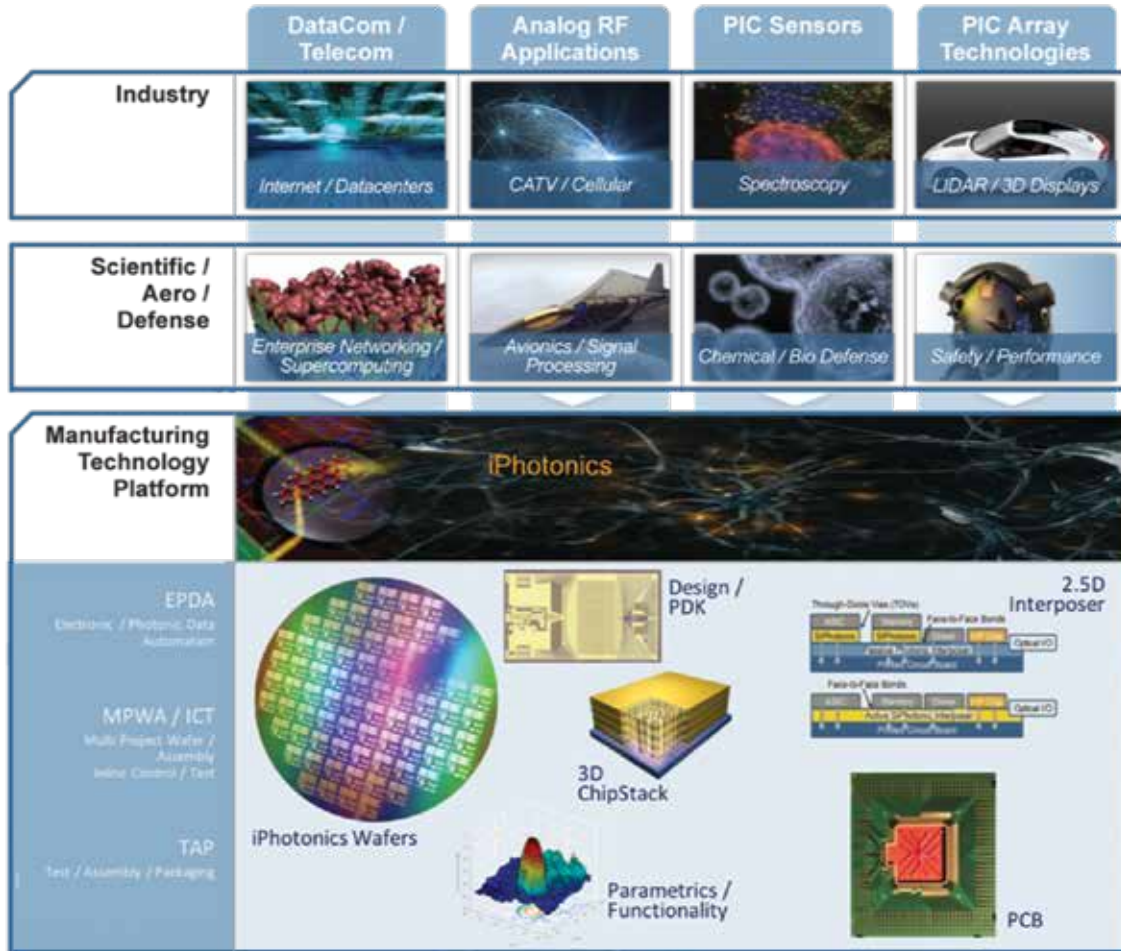


Developing a widely accepted set of processes and protocols for the design, manufacture, and integration of photonics systems will not only advance this technology in the United States, but also present a tremendous economic opportunity, with the overall global market estimated to grow to in excess of \$795 billion by 2022. Integrated photonics will enable the advancement of the aforementioned applications, as well as others, in the 21st century in the same manner that semiconductor microchips fostered the revolution in computing over the past 40 years.

Government Partners:



Integrated Photonics Ecosystem



enable iPhotonics eco-system

- innovation
- proof of concepts
- comprehensive component library
- electronic/photonic design environment
- component/system prototypes
- multi project wafers, 2.5/3D assembly
- optical packaging, test
- enhance equipment/materials
- low rate production
- path to high rate production

