

WHO WE ARE

Omega Optics Inc. is a research and development company founded in 2001.

We develop science-based solution to the most challenging problem through private and government-sponsored research.

We are led by distinguished Dr. Ray Chen who is:

- Award-winning keys and Joan Curry/Cullen Trust Endowed Chair at The University of Texas at Austin
- Director of the Nanophotonics and Optical Interconnects Research Lab at UT-Austin
- Director of the multiple AFRL MURI-Centers for Silicon Nanomembrane Photonic Technology

OUR TECHNOLOGY

With nearly 20 U.S. patents/applications in hand, our expertise broadly covers:

- Lab-on-chip nanophotonic chemical and biological sensors;
- Silicon and polymer based photonic and optoelectronic devices;
- Flexible/printed electronics and photonics;
- Photonic and microwave phase array antennas; and
- Photonic EM-Wave sensor

Contact us

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OMEGA
OPTICS

We Deliver Innovation

Integrated Photonics Multiplexing Biomarkers Analysis Platform

Omega Optics, a leader in nanophotonic R&D, is introducing a multiplexed biomarkers analysis platform with accurate, affordable, and convenient detection capability, especially to identify protein, DNA, RNA, and small molecule in biosamples, contributing to personalized biomarker-based monitoring. The innovations in silicon-based “slow light” photonics enhances the effective optical path lengths and thereby enables miniaturization and higher detection sensitivity. This platform has completed the phases of prototyping and verification testing in product development.

Potential Applications

Our patented technologies can enable highly sensitive portable devices for biosensing applications including:

- Early diagnosis and detection of cancers
- Infectious diseases: Covid-19, Flu, etc.,
- Antibiotic monitoring
- Biomarkers of mental disorders, such as depression and stress
- Pharmaceutical drug discovery
- Protein, DNA, miRNA types of biomarkers

Technical Advantages

- Detects any biomolecules (proteins, DNA, mRNA, small molecules) via conjugates affinity with high specificity and high sensitivity.
- In-situ results in less than 30 minutes with rugged, portable, easy-to-use device

Partnership with us

Omega Optics Inc. seeks partnerships to help bring our patented technologies to market. Please contact us to discuss ways we can work together.

