WHO WE ARE

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

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

We are led by the 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 multiple AFRL MURI-Centers for Silicon Nanomembrane Photonics Technologies

OUR TECHNOLOGIES

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 phased array antennas; and
- Photonic EM-wave sensors

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OMEGA OPTICS

We Deliver Innovation

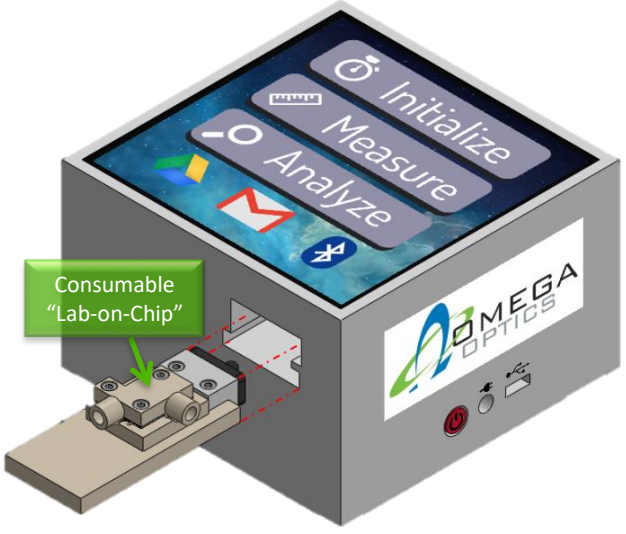
Nanophotonics Breakthrough to Drive Portable Bioassays

Omega Optics, a leader in nanophotonics R&D, is developing novel chip-based technology that will revolutionize the world of portable, label-free bioassay devices.
Our most recent achievements and innovations in silicon-based "slow light" photonics enhances the effective optical path lengths and thereby enables **miniaturization and higher detection sensitivity**. With these breakthroughs, we are engineering a platform technology of highly sensitive, flexible, portable, multiplexed and cost-effective "lab-on-chip" solutions that will soon disrupt portable bioassay markets.

Potential Applications

Our patented (and patent-pending) technologies can power highly-sensitive portable (or bench-top) devices for biosensing applications including:

- Detection of heavy metals, VOCs and TICs in water
- Pathogen detection in Food & Beverage
- Early cancer biomarkers
- Infectious diseases
- Antibiotic monitoring
- Pharmaceutical drug discovery



Technical Advantages

- Our proprietary microarray design allows for up to 128/256 different targets and controls to be tested simultaneously on the same chip
- Total sample volume of only 100µl required for all 128/256 targets and controls
- Detects any biomolecule (proteins, DNA, mRNA, small molecules) via conjugate affinity with high specificity and high sensitivity
- In-situ results in less than 30 minutes with rugged, portable, easy-to-use devices

Expected Sensitivity of Selected Pollutants in Water - ***Portable*** Device

Pollutants		Sensitivity
Cd	Cadmium	<10 ppb
Cr	Chromium	<10 ppb
Cu	Copper	<10 ppb
Hg	Mercury	<10 ppb
Pb	Lead	<10 ppb
U	Uranium	<10 ppb
C_2HCl_3	TCE	10 ppb
C_8H_{10}	Xylene	1 ppb
Others		ppm - ppb

Contact Us

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