

- TIPD is an early stage startup company that was founded in order to commercialize the extensive research and development of various photonic materials and devices developed by the Lasers and Photonics research group at the College of Optical Sciences, University of Arizona. TIPD has established a license agreement with the University of Arizona covering key intellectual property

- Headquartered in Tucson, Arizona near the University of Arizona, TIPD's purpose-built facility has over 5,300 ft² of laboratory space (including labs that be secured for ITAR restricted work.

- TIPD's Oceanside, CA facility has 6,500 ft² of research lab spaces and includes several dedicated 3D display laboratories and wet processing facilities for holographic optical element development.

Products:

- Compact high power CW and pulsed lasers operating at: 240nm, 244nm, 257nm
- Compact, ultrastable and NASA flight qualified IR lasers and Raman amplifiers producing up to 60W at 1.26μm for O₂ detection
- Holographic displays and HOE
- Innovative solar PV systems and capacitors for alternative energy applications

People:

- Over one-half of TIPD's employees have advanced degrees and TIPD employees have:
 - Over 60 years of holography and holographic optical element optical design and system development
 - Over 40 years of laser development
 - Over 25 years of photonic material development

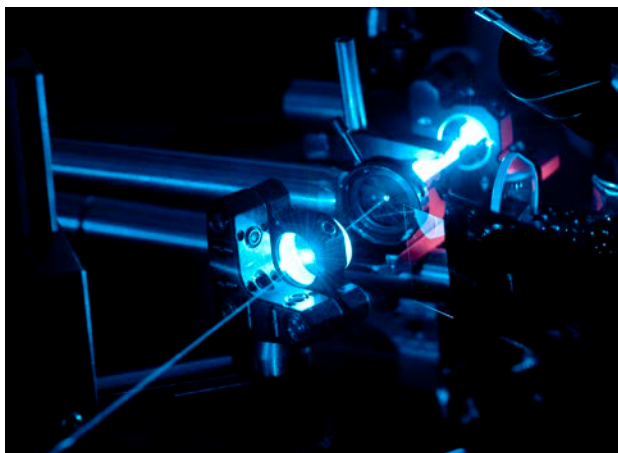
TIPD's novel photonic solutions enable government and commercial researchers to dramatically reduce their development and integration efforts by providing cost effective customized laser, holographic, alternative energy solutions.

Contact Us
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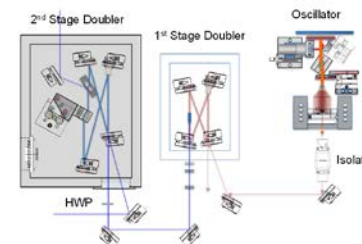
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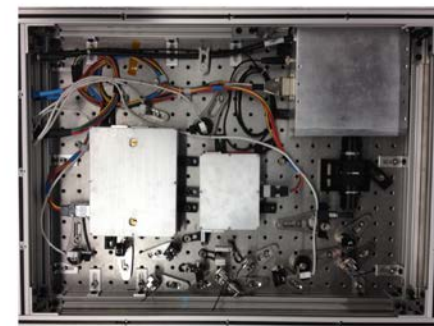


Custom Photonics Solutions that Exceed the Need

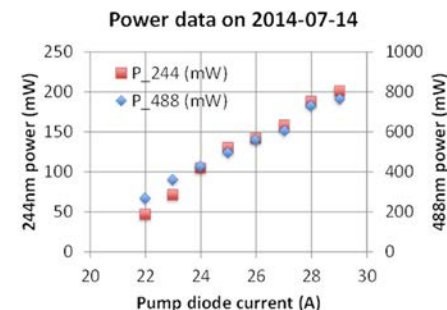
From Design ...



... to Development ...



...to Results





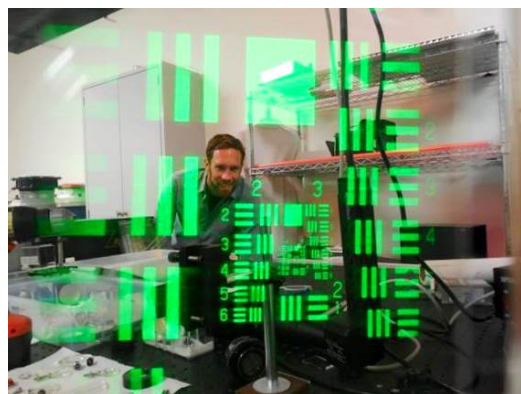
Company History

TIPD was founded in 2006 with the goal of commercializing the extensive research and development of photonic materials and devices conducted by the optoelectronic research group at the University of Arizona (UA). TIPD's operational strategy is focused on development and manufacturing of photonic systems and devices.

TIPD's products offer researchers and designers novel and cost effective systems that provide superior performance and can be easily integrated into demanding applications. One example is a "solar" window that is both attractive and generates electricity from the non-visible portions of the solar spectrum. The technology can be integrated into existing buildings and has been scaled to commercial – sized windows.

Mission/Vision Statement

TIPD develops novel and cost effective optical solutions to government and industry's most demanding challenges.



TIPD's holographic combiner

Core Competencies

- Novel UV and NIR laser research and development for hazardous material characterization and LIDAR applications.
- Holographic 3D displays and Holographic Optical Element (HOE) development
- Novel Optical approaches for solar and alternative energy and telecommunications applications

Phase II Awards

Holography

Air Force – Holographic Video Display Using Novel Guided-Wave Scanning System

Air Force - Updateable 3D Display Using Large Area Photorefractive Polymer Devices

IARPA - 3D Holographic Display Technology using Large Area Photorefractive Polymers

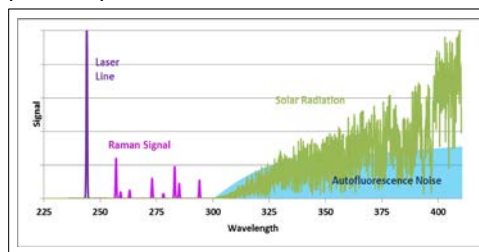


DUV Laser Development

Army - Deep Ultraviolet Laser for Raman Spectroscopy

NASA - Ultrastable and Compact Deep UV Laser Source for Raman Spectroscopy

DARPA - LUSTER Single-frequency Fiber Laser Pumped Deep Ultraviolet Laser Source



Alternative Energy

Navy - Non Mechanical Solar Directing System

DARPA - Ultrahigh dielectric strength biotronic capacitors based on sol-gel/DNA-CTMA blends

Photonics

Air Force/Army/DARPA - High-Speed, Low Voltage, Miniature Electro-Optic Modulators Based on Hybrid Photonic-Crystal/Polymer/Sol-Gel Technology

Market/Customers

Government Customers

Air Force: AFRL, AFOSR
 Army: AMCOM
 DARPA
 IARPA
 NASA
 NAVY: EXWC

Domestic Commercial Customers

Comp-Optics
 Duke University
 ITT/Exelis/Harris
 Lumera
 University of Dayton Research Institute

International Commercial Customers

Nitto Denko
 Toyota

Contract Vehicles

- SBIR Phase I, Phase II and Phase II.5
 Subcontracts



View through TIPD's solar window