



UNIQUE AND INNOVATIVE PHOTONIC SOLUTIONS

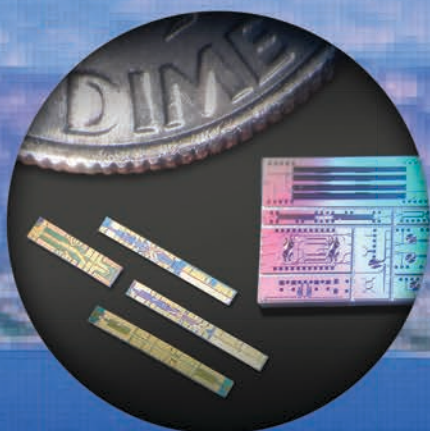
FREEDOM PHOTONICS is a manufacturer of unique and innovative photonic components, modules and subsystems. Our advanced semiconductor and dielectric photonic integration technology platforms are enabling new, high-performance fiber and free-space optical communication and sensing systems aimed at applications in diverse markets. If one of our standard products do not work for you, and you have a need that can be met through customizing our core photonic technology in Indium Phosphide, Gallium Arsenide or Silicon, we will be happy to provide a private label solution to support your needs.

Product Families

- Fast tunable lasers from 1250nm to 1750nm
- Swept tunable laser sources
- High power lasers: single and multi-mode, tunable – 780nm to 1700nm
- Optical transmitters (fiber and free-space)
- High power photodetectors for RF photonics

Private Label Photonic Integrated Circuits (InP, GaAs, Silicon, Dielectric)

- Private label product building blocks (InP, GaAs, Si)
 - Active and passive waveguide components
 - Widely tunable lasers and high-power single mode lasers
 - High-speed modulators
 - High-power and speed photodetectors
 - Micro-optic assemblies
 - Hermetic optical modules
 - Controllers and fully integrated systems

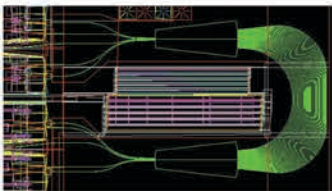




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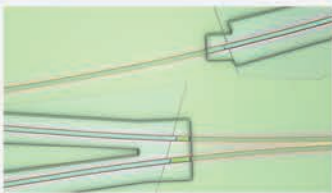
PRIVATE LABEL PRODUCTS

Our team's world class expertise in vertically integrated photonic product design (device-module-system) and production has helped many customers prove feasibility, develop, and deploy new products for a variety of applications. Let us help you be successful by providing a complete design to manufacturing solution for your market needs. Focus on what you know best and leave the photonics piece to us.



Photonic Device Design

- Epitaxial structure design
- Passive component design
- Active component design
- Custom semiconductor laser design



Photonic Chip Fabrication

- Epitaxial structure specification and procurement
- Fabrication process design and development
- Fast turn-around low-volume fabrication
- Implementation and management of volume production fabrication



Module Design and Photonic Packaging

- Mechanical, electrical and optical design
- Packaging process development
- In-house packaging using laser welding and/or UV curing
- Implementation and management of volume production



Subsystem Design

- Mixed signal control circuit design
- Multilayer mixed signal printed circuit board layout
- PCB fabrication, assembly, test and integration
- Implementation and management of volume production



Testing

- Optical performance testing
- Electrical performance testing
- Burn-in and environmental testing
- Qualification testing



Manufacturing

- Complete photonic chip design and fabrication
- Chip-on-submount assembly
- Photonic module assembly
- Implementation and management of low to high volume production