Pioneers in Silicon Photonics technology, committed to be at the forefront of Silicon Photonics applications across the globe.

Advanced Micro Foundry (AMF) is at the forefront of global Silicon Photonics innovation, with demonstrated applications across C-band, O-band, and L-band. With multiple technology platforms and comprehensive PDKs, we deliver high-quality, cutting-edge solutions serving Telecommunications, Data Communications, LiDAR, AR/VR, Sensors, Consumer Health, and High-Performance Computing.

Three Platforms, Endless Possibilities

AMF's innovative platforms are at the heart of our Silicon Photonics solutions. Explore our three distinct platforms, each crafted to offer optimal performance and flexibility for various use cases.

1. General Purpose Platform (GP)

Our GP is the foundational platform. Proven over years of application in mainstream O-band and C-band solutions, the GP platform is designed for reliability and repeatability.

Key Features:

- Silicon-on-Insulator (SOI) technology for excellent optical confinement and performance.
- PECVD SiN-on-SOI for a cost-effective solution with broad capabilities in waveguiding.
- Proven performance for mainstream O-band and C-band applications.

Ideal For:

- ✓ Telecom and data center operators looking for reliable, scalable solutions.
- ✓ Designers needing a flexible, cost-efficient platform with broad industry support.

2. High-Performance Platform (HP)

HP was engineered to tackle the high-speed, ultra-low-loss demands of next-generation applications. It delivers unmatched performance for applications demanding higher bandwidth and lower latency.

Key Features:

- Advanced HS Modulators and Ge Photodetectors designed for ultra-fast data transmission.
- Non-Suspended Edge Coupler, a critical innovation for precise passive alignment.
- Access to LPCVD SiN technology for improved material properties and performance.

Ideal For:

- ✓ AI-focused companies, cloud service providers, and research institutions.
- ✓ High-performance applications requiring top-tier photonic components for next-gen systems.

3. Custom Platform (CP)

As the world of photonics continues to evolve, AMF is committed to offering customized solutions that empower our clients to build the systems of tomorrow. The Custom Platform (CP) is designed for those who require non-standard layer configurations or the integration of specialized materials, such as TFLN, GaN, Glass, and others (This offering is subject to further evaluation).

Key Features:

- Full support for custom layer stack configurations tailored to specific needs.
- Integration of specialty materials.
- Ability to work with emerging technologies, like integrated photonics for quantum computing.

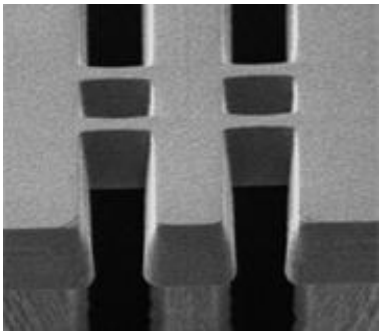
Ideal For:

- ✓ Innovators developing cutting-edge solutions in fields like quantum computing, adv. sensors, etc.
- ✓ Companies and research institutions needing bespoke, flexible platforms for novel applications.

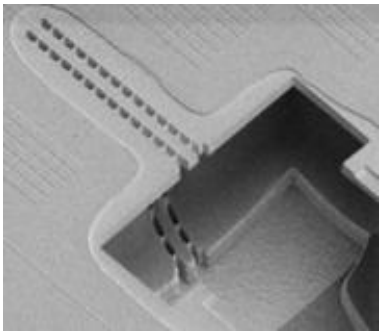
Packaging Enablement

Facilitating the packaging of our Photonics Integrated Chips is always on the mind of our engineering teams. Our platforms are compatible with our Wafer Level Packaging solutions. These solutions include:

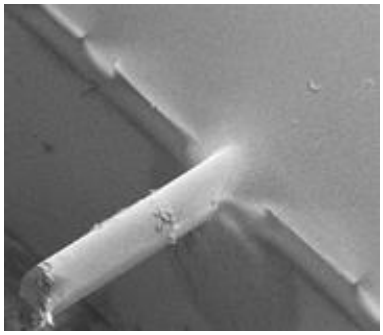
Low-Loss Fiber to Waveguide



Suspended couplers



V Groove



Single Mode Fiber Attachment

Wafer-Level process module for Laser Diode attachment