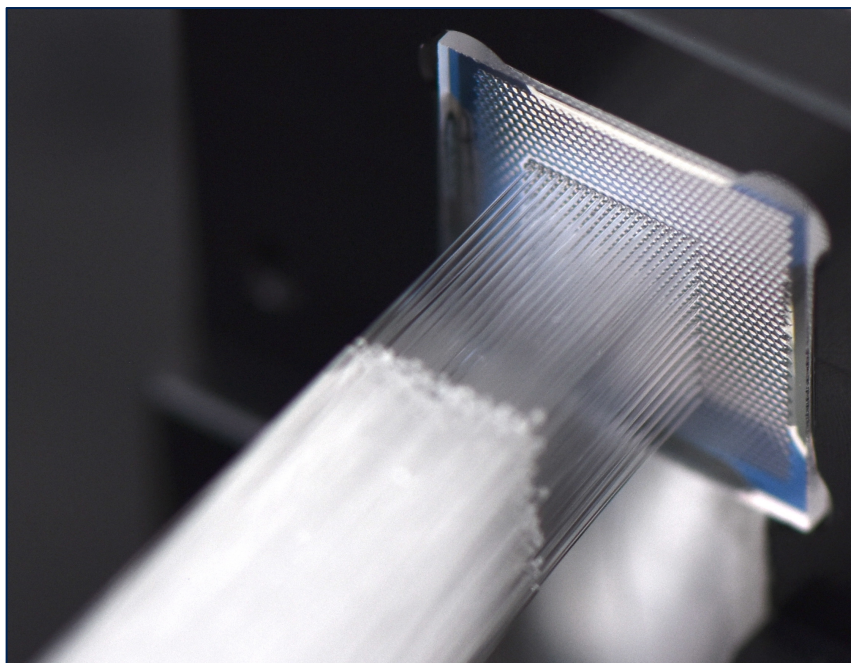




Medusa™

High-Density Fiberized Microlens Arrays



Medusa™ fiberized microlens arrays offer nearly limitless scaling for fiber interconnects that cannot be matched by competing technologies.

Laser-welded fibers ensure robust adhesion and 100% fused silica beam path, while automated alignment guarantees performance specifications regardless of fiber type.

Key features:

- SM or co-aligned PM fibers
- $\geq 127 \mu\text{m}$ center-to-center spacing
- Configurable fiber location

Applications:

- Hyperscaling datacenter interconnects
- 2D silicon photonics interconnects



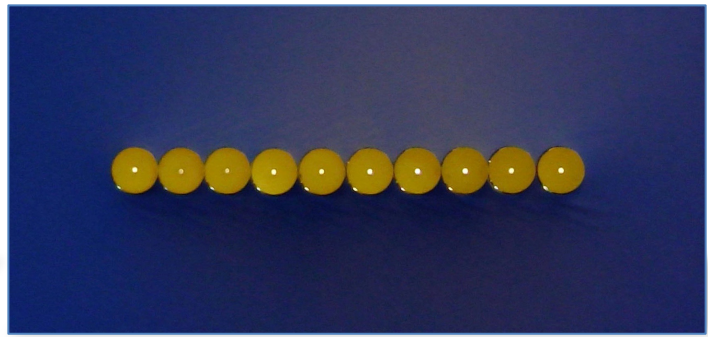
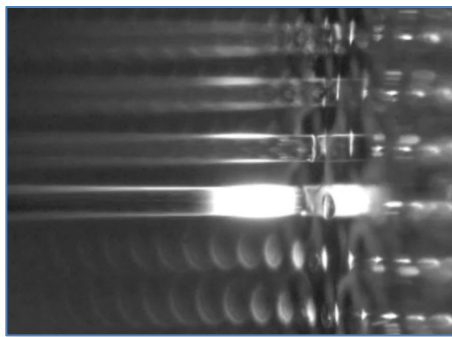
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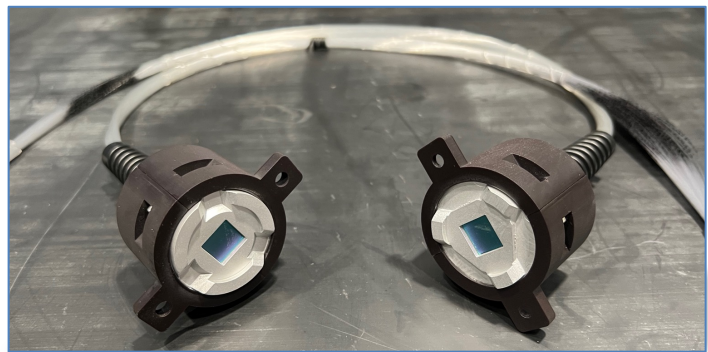
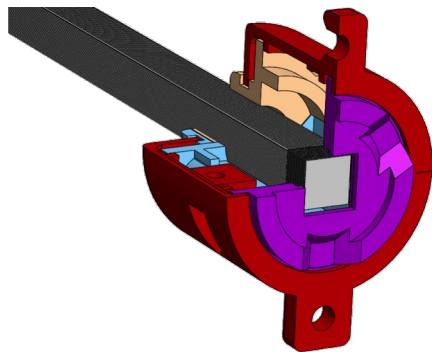
Specifications:

	Typical configuration	Options	Unit
Fiber type	SMF-28	PM, MM, LMA, mixed	-
Number of fibers	128	≥1024, user-defined	-
Fiber configuration	Hex-pack	Square pack, user-defined	-
Center-to-center spacing	300	≥ 127, user defined	μm
Pointing error	≤ 2.5	-	mrad
PM fiber co-alignment	≤ 0.3	Cross-aligned, user defined	°
Connector ⁽¹⁾ loss per channel	0.50 / 1.60	Average / maximum	dB

(1): Projected based on retro-coupling measurements and connector designs



Fibers are laser welded for strength, robustness, and all-optical path; potting is only used for strain relief.



Gen2 connector prototype with 1024 fiber capacity, including bar-coded fiber channels