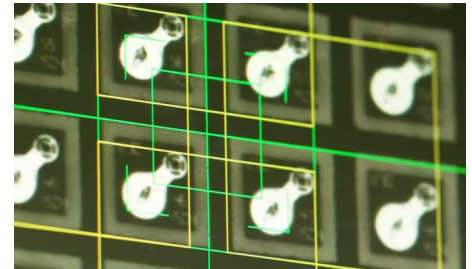


## Lumentum provides high-quality laser chips at scale

Lumentum is a world leader of laser chips for next-generation data centers, telecom, and 5G wireless applications, with top performance, manufacturing scale, product breadth, and a leading development pipeline.



Lumentum offers a broad family of differentiated laser chips from long wavelength edge emitting lasers, both directly modulated (DML) and externally modulated (EML), for single-mode fiber (SMF) applications to short wavelength vertical cavity surface emitting lasers (VCSELs) for short-reach multimode fiber applications.

Our laser chips are fabricated in state-of-the-art manufacturing foundries with the capability to deliver complex and high-data-rate optical solutions. These GR-468 qualified products include lasers for both cooled and uncooled operation and for hermetic and non-hermetic applications.

Laser chip products include:

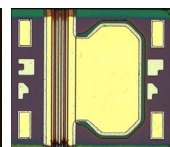
- EMLs for next-generation products that use DSPs and sophisticated PAM4 transmission at 400G and above
- DMLs for high-speed modules used in hyperscale data center, 5G wireless fronthaul, and other telecom network applications
- VCSELs including single die and 1x4 arrays for 25G data rates and 50G PAM4 for next-generation short-reach module applications in data centers, storage, and telecom

### Key applications:

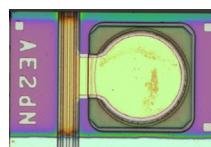
- 100G EMLs
  - 100G DR, FR, LR
  - 400G DR4, FR4, LR4
  - 800G DR8/PSM8
  - 2x400G FR4
- 50G EMLs
  - 200G FR4, LR4
- 100G DMLs
  - 100G DR/FR
  - 400G DR4 /FR4
  - 800G DR8/PSM8
  - 2x400G FR4
- 50G DMLs
  - 200G FR4
  - 50G LR, BiDi 10 km
- 25G DMLs
  - 25G LR, BiDi 10 km
  - 100G CWDM4, PSM4, LR4
- 10G DMLs
  - 25G LR, BiDi, 6λ, 12ch MWDM, 12ch LWDM 10 km
- 70mW CWDM CW laser for SiPh
  - 400G DR4, FR4
  - 800G DR8/PSM8
  - 2x400G FR4



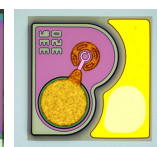
100G EML



10G DML



25G DML



25/50G VCSEL