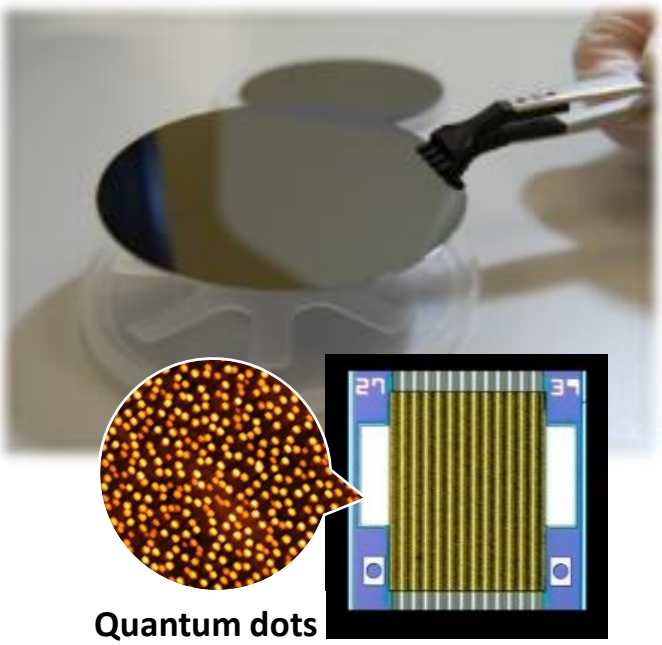
Quantum Dot Laser
Epitaxial Wafer / Foundry Service

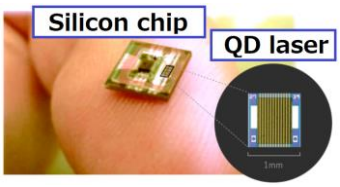
1300nm Quantum Dot Laser for Silicon Photonics

- High-temperature operation for densely integrated optoelectronics
- High optical feedback tolerance for removing isolator from your system
- Full-service foundry of customized epitaxial wafer and wafer process from development to mass production



Application examples

- Silicon photonics
  - Intra-data center comm.
  - High performance computer
  - LiDAR (FMCW, ToF)
  - Intra-vehicle comm.
  - Mobile infrastructure
- Underground resources exploration (175-200°C)



Quantum dot laser, gain chip

- Operation up to 200°C, enabling densely packed laser array
- High optical feedback-tolerance (<-130dB/Hz. Cf. QW<-120dB/Hz at -30dB)
- Highly reliable at high temperatures (Est. lifetime > 300Khrs at 85°C)
- Customized wide-band gain spectrum upon request

Epitaxial wafer / Foundry service

- Epitaxial wafer (w/, w/o grating), wafer process, facet coating available
  - Wafer for wafer bonding, FP/DFB laser, gain chip
  - Multi-channel laser array, laser for flip-chip bonding
- Customized epitaxial wafer and chip design
- Full-service foundry from development to mass production

QD LASER

https://www.qdl-laser.com/
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Product Lineup*

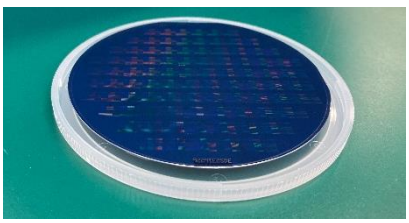
Wavelength	Type	Form	Output Power (mW)
1300nm	FP	Chip, TO-CAN	>10
1300nm	DFB	Chip, TO-CAN	>10
1240nm	DFB	Chip, TO-CAN	>10
1240-1300nm	Epitaxial wafer	Wafer	n/a

Foundry Service*

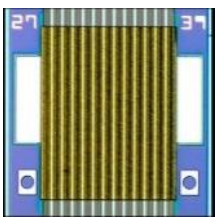
Menu	Description
Epitaxial Wafer	Epitaxy on 3inch GaAs substrate
Epitaxial Wafer with Grating	1st epi, grating formation, regrowth
Wafer Process	CAD, photo mask, wafer process
Chip Fabrication	Bar cleaving, facet coating, chipping

Product Family

Quantum dot wafer

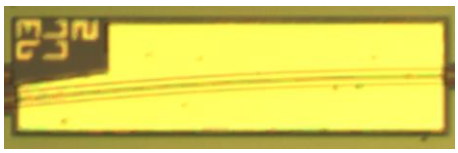


Laser chip



TO-CAN package

Gain chip



*Please contact us for other wavelengths and options.

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