

AT A GLANCE

Coming soon!

Application-specific external cavity laser implementations based on HHI's hybrid integration technology



Features

- Low-loss waveguide spirals for tailorable repetition rate
- High-Q micro-ring resonators for wide tunability and narrow linewidth
- Add-on functionalities such as isolators and wavelength meters available

Applications

- Telecom / Datacom
- Quantum technologies
- Sensing and analytics
- mmW / THz photonics

Hybrid external cavity lasers

Fraunhofer HHI's SiN and PolyBoard wafer lines enable the hybrid integration of SiN and polymer waveguides with active components for mode-locked lasers with a tailored repetition rate and external cavity tunable lasers operating at NIR wavelengths.

References

International R&D projects

SPRINTER

TERA6G

POLYNICES

(funded by EU commission)

National R&D projects

PolyChrome Berlin

QuNET+LORELAY

(funded by BMBF)



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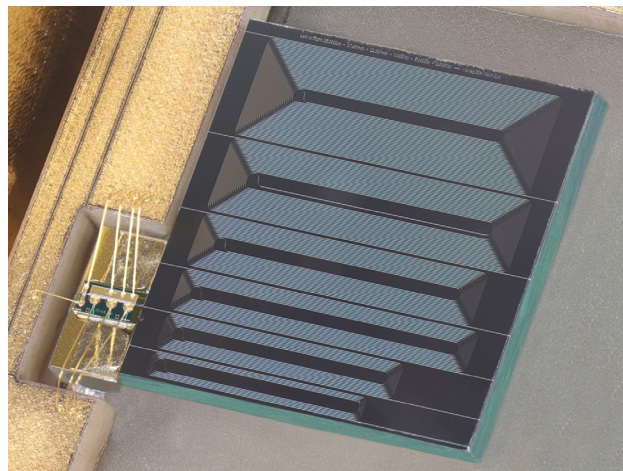
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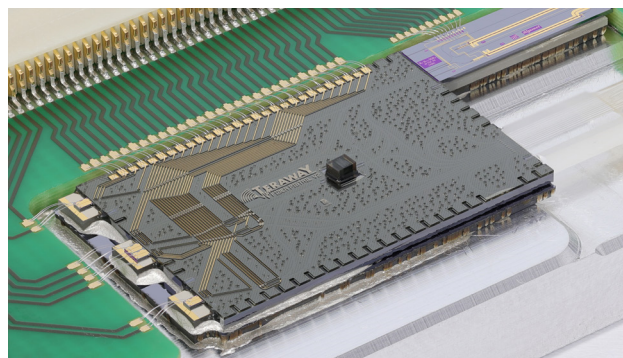
Germany

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Application-specific laser cavities

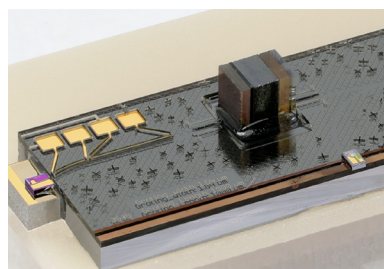


Mode-locked laser (InP-SiN)



Tunable multi-wavelength optical source for 6G+ (InP-PolyBoard)

Combinable with other on-PIC functionalities



Optical isolators



Etalons for wavelength meters