MODE-LOCKED AND TUNABLE LASERS

Fraunhofer HHI

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.

Fraunhofer HHI

References

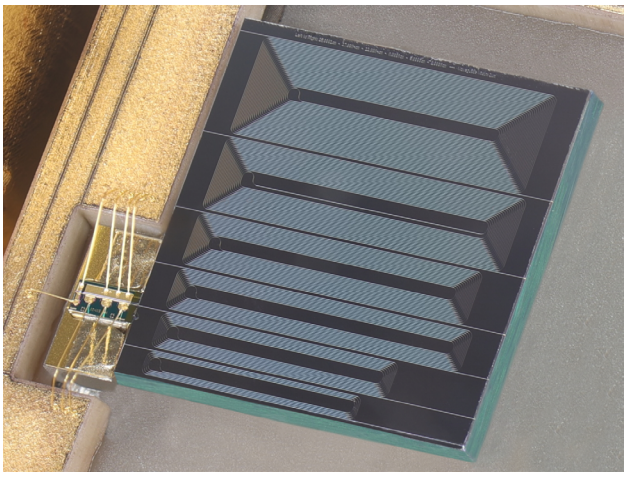
International R&D projects

SPRINTER
TERA6G
POLYNICES
(funded by EU commission)

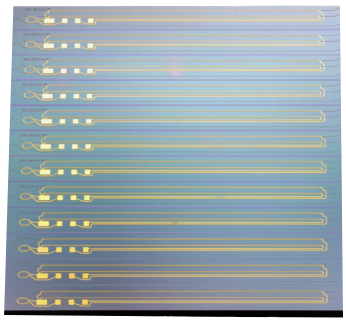
National R&D projects

PolyChrome Berlin
QuNET+LORELAY
(funded by BMBF)

Application-specific laser cavities

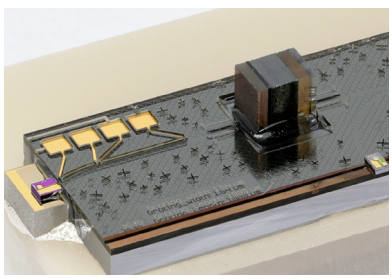


Mode-locked laser



Thermo-optically tunable elements for external cavities

Combinable with other on-PIC functionalities



Optical isolators

Etalons for wavelength meters

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