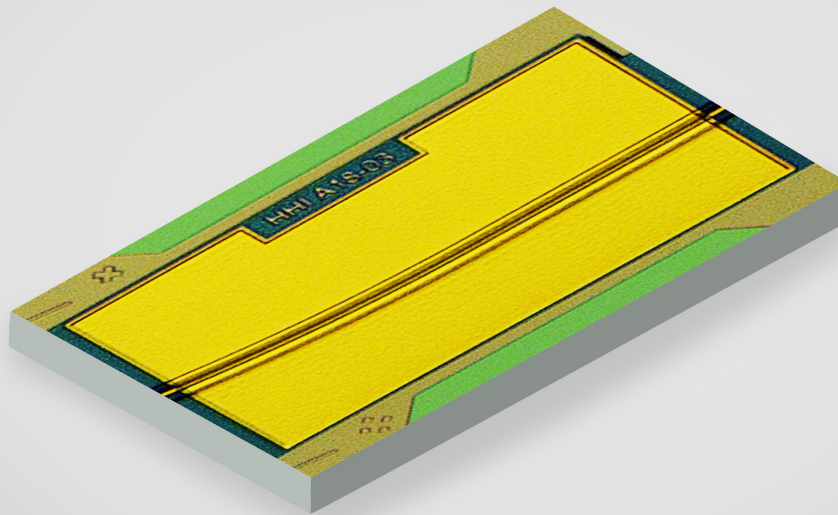


InP Gain Chips (RSOA) for Hybrid Integration



AT A GLANCE

InP gain elements for application in photonic multi-chip approaches



Features

- p-side up or flip-chip configuration
- Integrated taper for low loss optical coupling
- Circular optical far field, FWHM $<20^\circ$
- On request precise alignment structures for lateral & vertical positioning
- Flexible adaptation of devices corresponding to customer's photonic platforms

Applications

- Telecom/Datacom
- Sensors

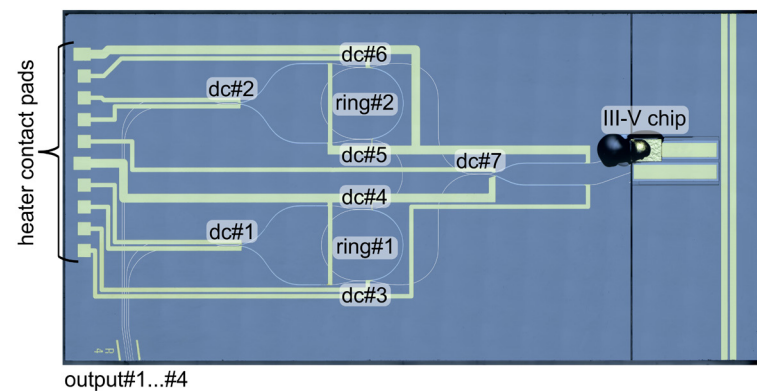
Device Variants

- Single chips and arrays
- High power
- High speed

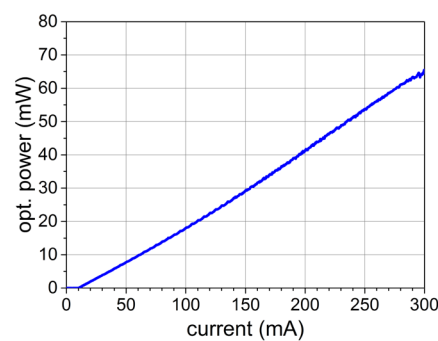
Photonic Platforms

- Silicon on Insulator (SOI)
- Silicon-Nitride
- Lithium Niobate-On-Insulator (LNOI)
- Glass
- Polymer

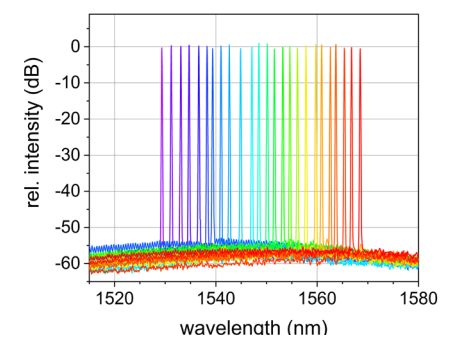
Example: Hybrid tunable laser



Flip-Chip integration of InP gain chip to SiN TriPlex™ PIC [1]



Measured optical output power of hybrid laser



Measured spectra of hybrid laser



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[1] M. Theurer et al., "Flip-Chip Integration of InP to SiN Photonic Integrated Circuits," J. Lightwave Technol., vol. 38, no. 9, pp. 2630–2636, May 2020, doi: 10.1109/JLT.2020.2972065.