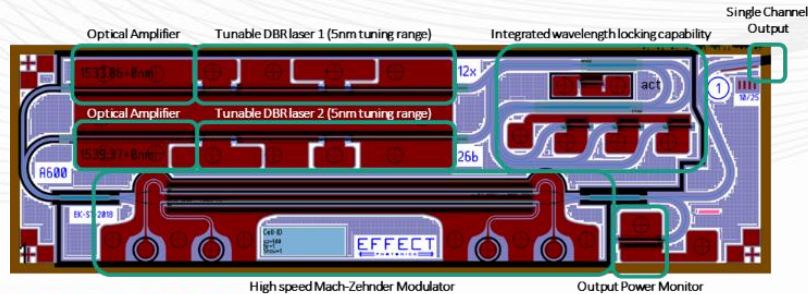


1. COMPANY OVERVIEW

OPTICAL SOC TECHNOLOGY

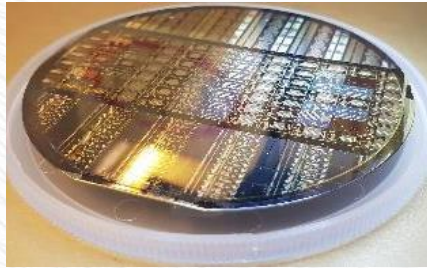
Our optical SoC (System-on-Chip) technology offers low-cost DWDM and tunability at the network edge by:

- Monolithically integrating all optical system functions onto a single chip
- Using non-hermetic packaging technology to scale volume cost-effectively
- Integrating complete module solutions in many standard form factors



FROM CHIP TO MODULE

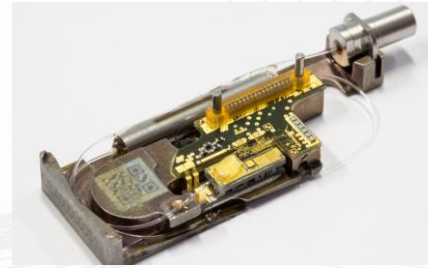
- Easy to integrate InP monolithic chip into cost-effective photonics modules
- Technology platform for easy scaling to large volumes
- Proprietary packaging and assembly for significant cost advantages



2", 3" or 4" InP Wafer



PIC s – Monolithic Tunable Transmitter



Optical Sub-Assembly (OSA, TOSA, ROSA)



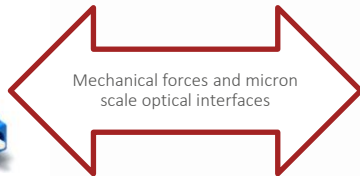
Module Assembly
Optical and Electronic

WHERE IS THE FLEX?

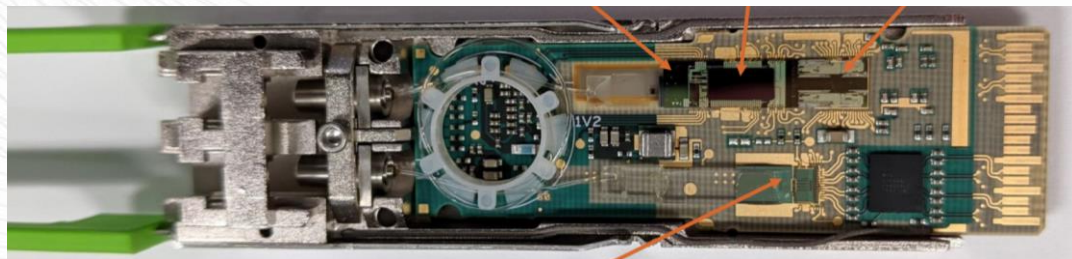
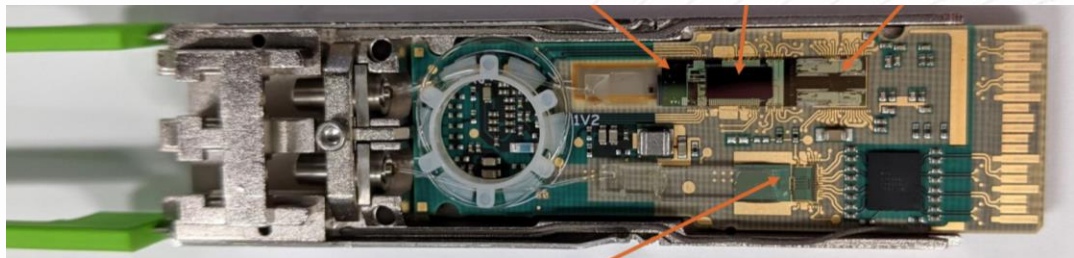
MECHANICAL DECOUPLING IS A MANUFACTURING BOTTLENECK

TRANSCEIVERS: CAUGHT BETWEEN A ROCK AND A HARD PLACE

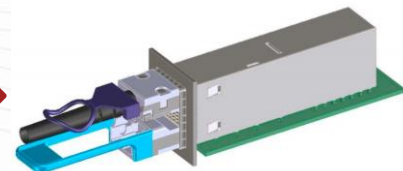
But still carrying all your data!



Mechanical forces and micron scale optical interfaces



Mechanical forces and Ghz RF interfaces



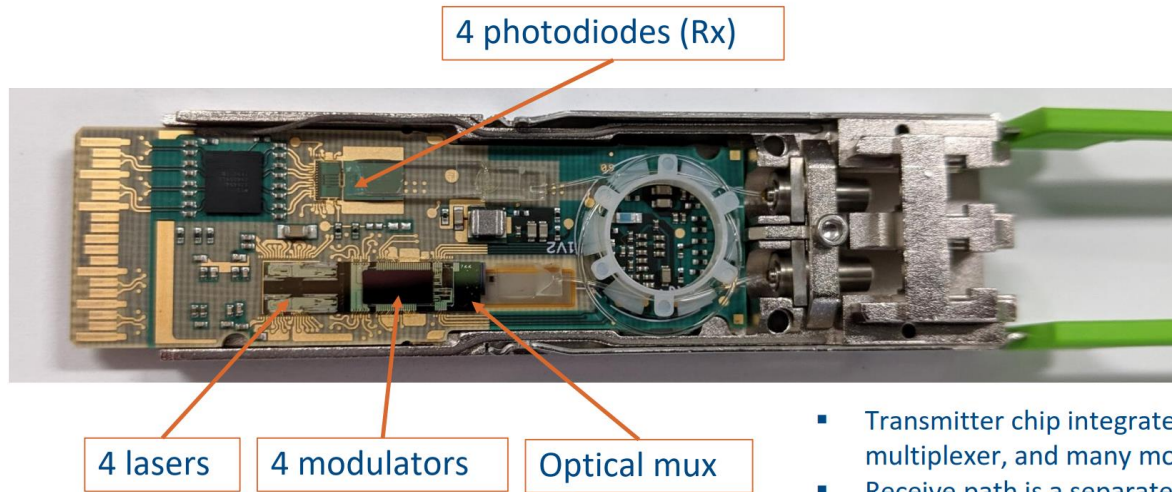
“Something’s gotta give”
Literally

INTEL APPROACH: OPTICAL FLEX

Electronics are fixed, and the fiber takes up the flex

By fixing the electronics to the outside world:

- PRO: High quality, well controlled electrical path, volume electronics manufacturing
- CON: Fiber management in a small formfactor is very manual, costly and non scaleable

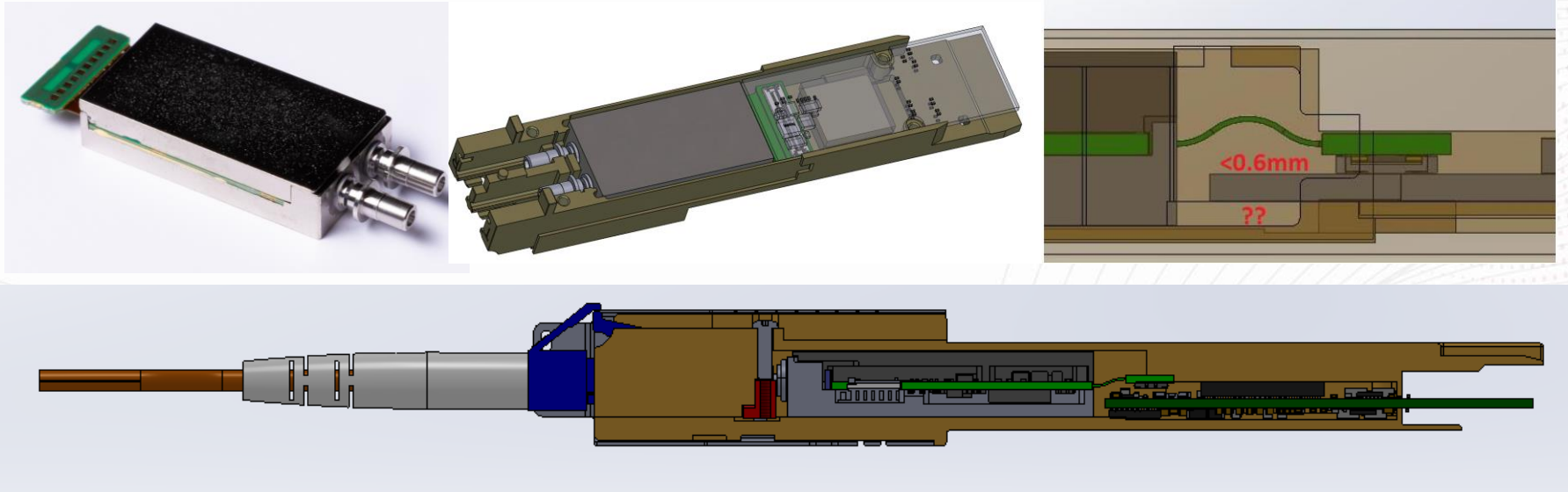


Award Winning 
First High Volume Integrated
Silicon Photonics Transceiver

- Transmitter chip integrates 4 lasers, 4 modulators, optical multiplexer, and many monitoring PD's on a single die
- Receive path is a separate chip with 4 high speed photodiodes

Source: Yole/Systemplus

EFFECT APPROACH: ELECTRICAL FLEX

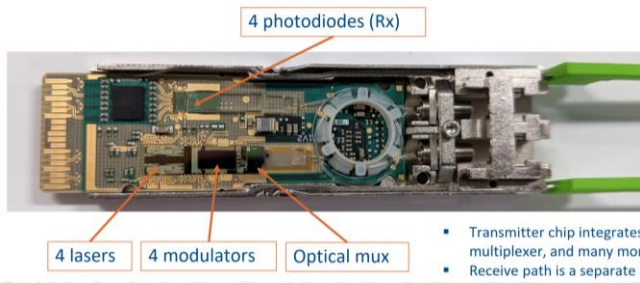


By fixing the Optics to the outside world:

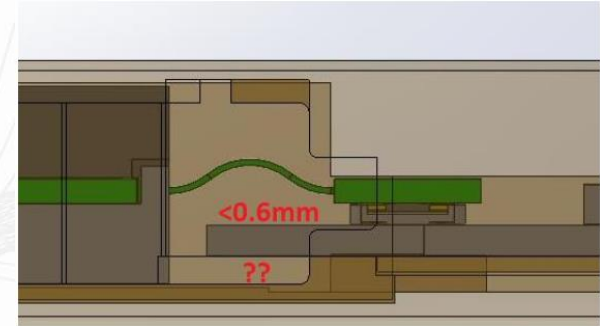
- PRO: very low cost, very scalable optical alignment, easy module assembly
- CON: High density flexible RF and DC interfaces are needed, electrical limitations on how many signals can go across flexible domain

THERE HAS TO BE A BETTER WAY THAN GOING BACK AND FORTH

Fiber based approaches



Electrical flex based approaches



EFFECT Photonics is interested in scaleable and automatable packaging and testing solutions that fix the “flexibility” problem