INO offers silicon photonics packaging and wafer post-processing services. We have the ability to deliver silicon photonics devices showing very low insertion losses and submicronic optical alignment repeatability.

Thanks to more than 20 years of experience in multiple applications, INO can assume the packaging critical challenge. We build custom silicon photonics packages that will meet your specifications. As our specialty is customization and short series production, this technology is available for transfer in case you are seeking large volumes. The combination of our multidisciplinary team’s expertise, of our coupling methods and of our state-of-the-art equipment (featuring a < 100 nm and < 0.005° alignment repeatability) enables us to perform edge and vertical coupling while minimizing losses due to fixation process.

**Edge coupling performances:**
- Losses due to fixation process < 1.5 dB per fiber @ 1571 nm for a MFD @ 2500 nm
- Alignment tolerance < 1 µm

**Vertical coupling performances:**
- Losses due to fixation process < 0.5 dB
SILICON PHOTONICS PACKAGING

Standard package header

This package header that can be customized on request, thus reducing cost of development.

Key Specifications

- O/D 47.9 x 43.4 x 9 mm³
- I/D 34 x 41.4 x 7.25 mm³
- 40 electrical i/o
- 6 optical i/o
- Laser welded ferrules
- TEC, thermistor

State-of-the-art equipment capabilities

Submicronic assembly station

- 13 axis
- Repeatability < 100 nm, < 0.005°
- Glue dispensing and UV curing
- Laser welding
- Optical probing ≤ 200 mm wafers
- VIS + IR cameras
- TEC controller
- LabVIEW-based software
- Automated processes