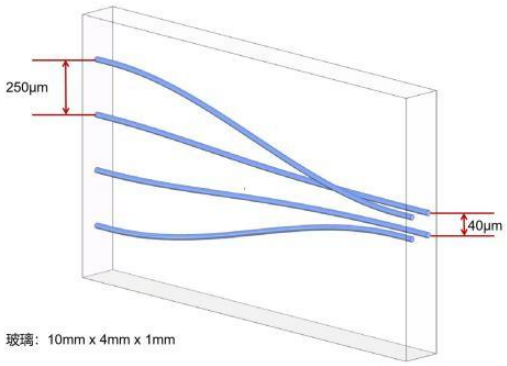
4-core Optical Waveguide Chip

Main features:

- Based on advanced 3D laser direct writing technology
- High optical transmittance from VIS to NIR
- Mode field diameter similar to optical fiber
- Low dielectric loss, suitable for 20GHz+
- Compatible with TGV through-hole technology, silicon photonics process platform
- High dimensional stability, thermal stability and chemical stability
- Low transmission loss and coupling loss
- Circular cross-section, controllable size, compatible with high-order modes



Application:

- High-density optical communication, optical interconnection;
- 3D optoelectronic integration, micro-nano optical devices;
- Optical sensing, optical computing;
- Quantum computing, quantum information processing.

Product Parameters:

Parameter Item	Min	Typical Value	Max	Remark
Wavelength(nm)	380nm	1310/1550nm	2400nm	
Edge coupling loss (dB/fac)		0.25dB/face		
Transmission loss (dB/cm)		0.08dB/cm	0.1dB/cm	Straight waveguide/large bending radius (>20mm) waveguide
Operating temperature (℃)	-10℃		85℃	
Depth (μm)	50μm		400μm	
Polarization Dependent Loss PDL(dB)	0.05dB		0.1dB	
Section Diameter(μm)	5μm		25μm	

Ordering Informtion:

Ordering information	Glass Material	Remarks

Arbitrary 3D waveguide structures	**Corning EAGLE XG Glass, Schott BOROFLOAT 33, All kinds of alkali-free high-boron glass, phosphate glass, photosensitive glass, crystal materials, etc.**	**Waveguide devices with small bending radius need to be calibrated in advance for bending loss**

Four-core fiber fan-in fan-out chip cross section diagram: