

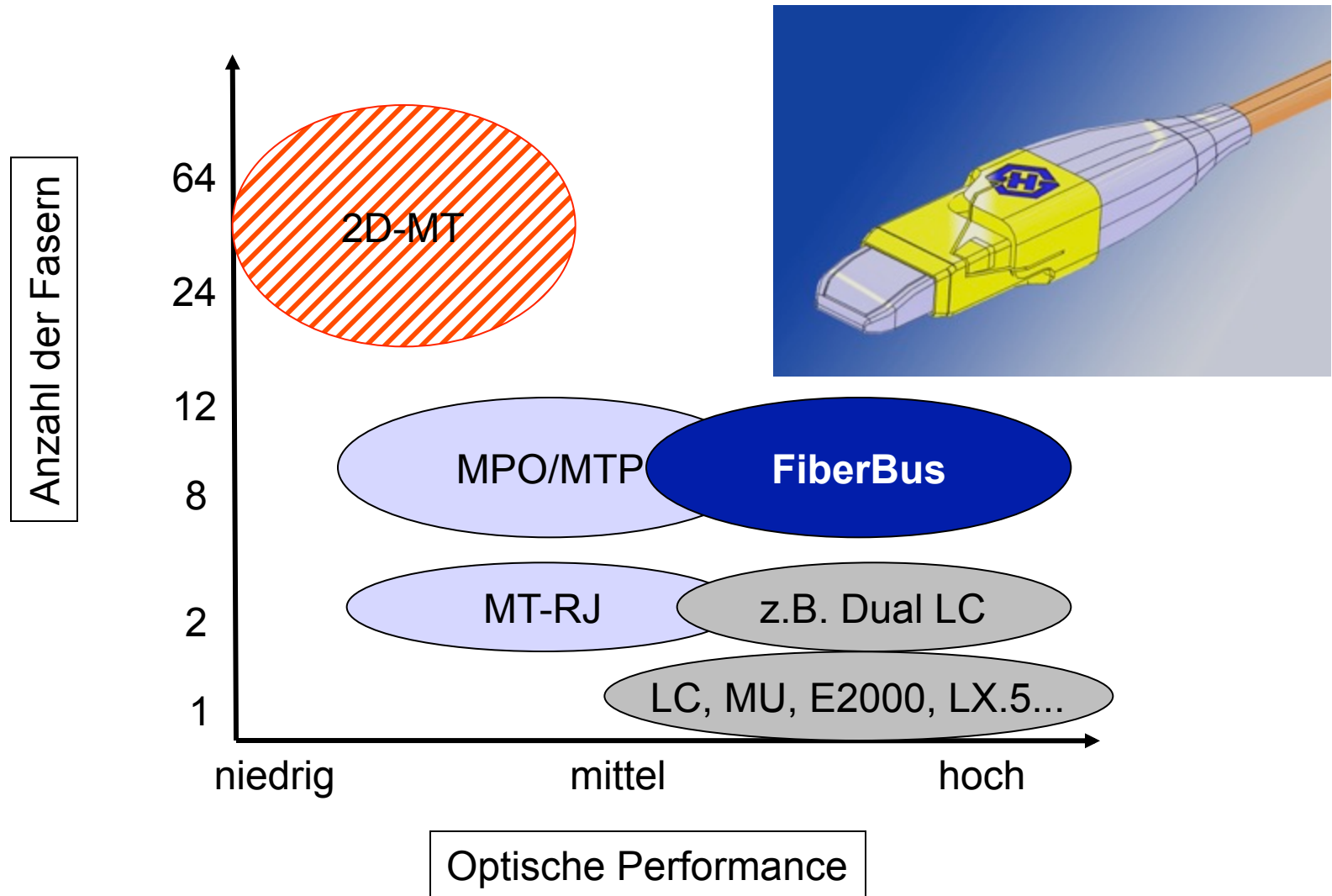
IV. ITG Workshop

Optischer Mehrfach-Faserverbinder für Singlemode Anwendungen

M.M. Strasser, T. Ammer, C. Compare, H. Studer, P. Zaina



Warum **III**FiberBus?



- **Verbindungskonzept**
- **Prototyp**
 - Einfügedämpfung
 - Rückflussdämpfung
 - Laser-Cleaven
 - Temperatur- und Vibrationstests
- **Produkt Vorschau**

Verbindungskonzept

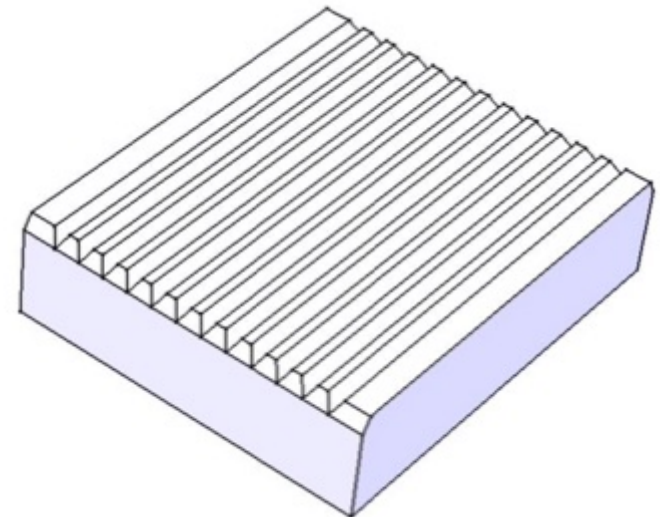
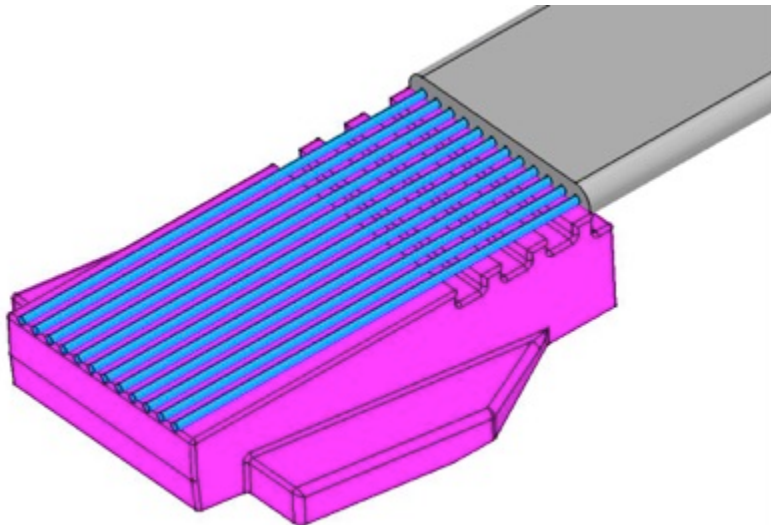


FiberBus Kernelemente



Faserblock
= Teil des Verbinders

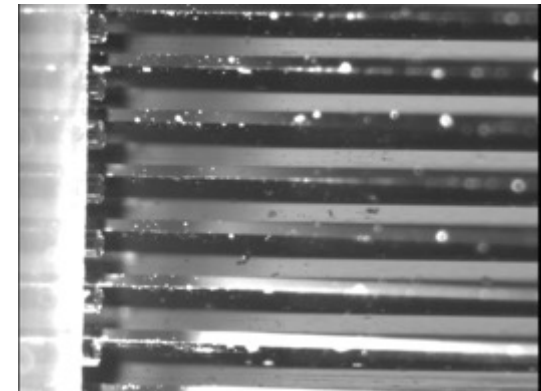
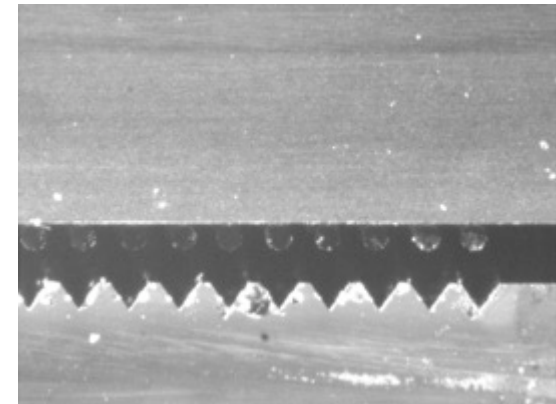
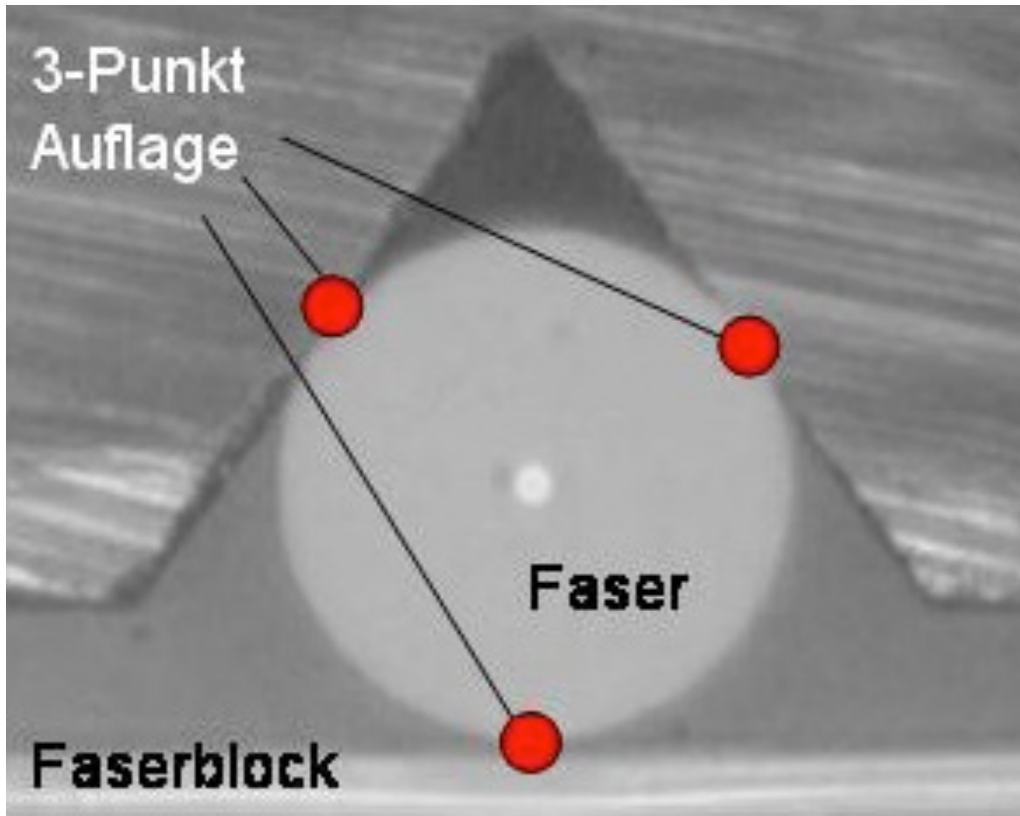
V-Nuten Element
= Teil der Kupplung



Ausrichtung (2) – Faser zu Faser

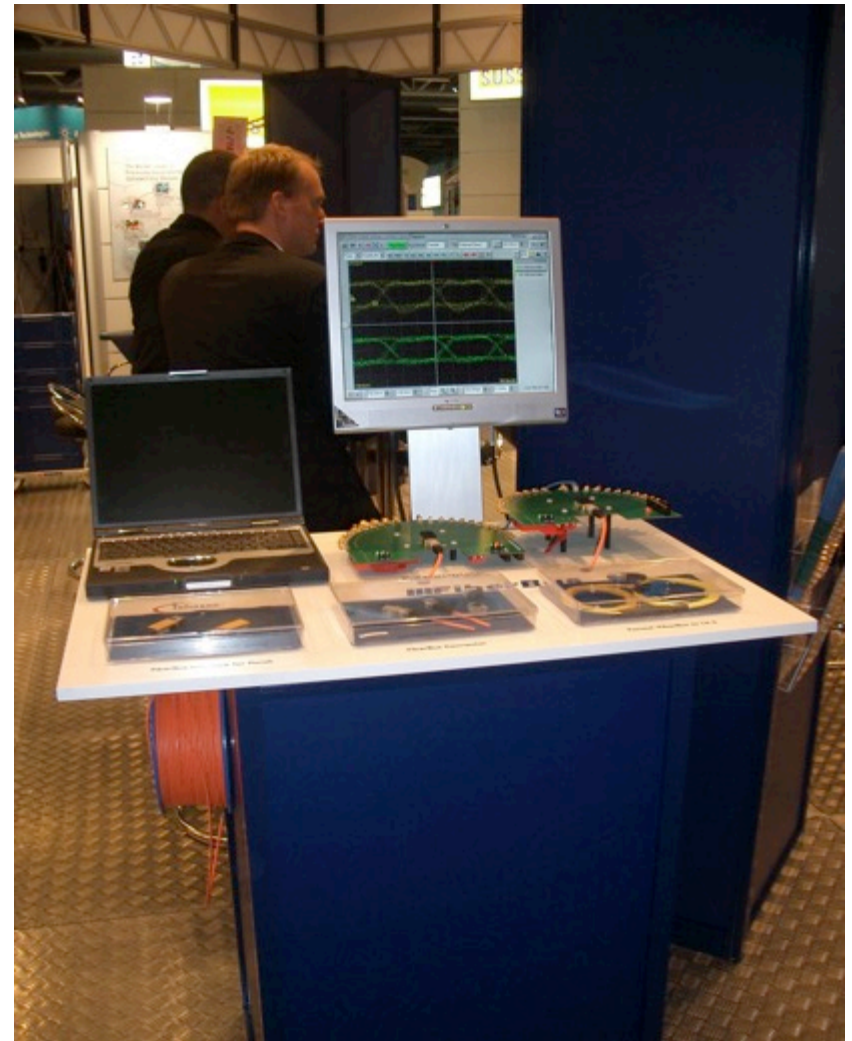
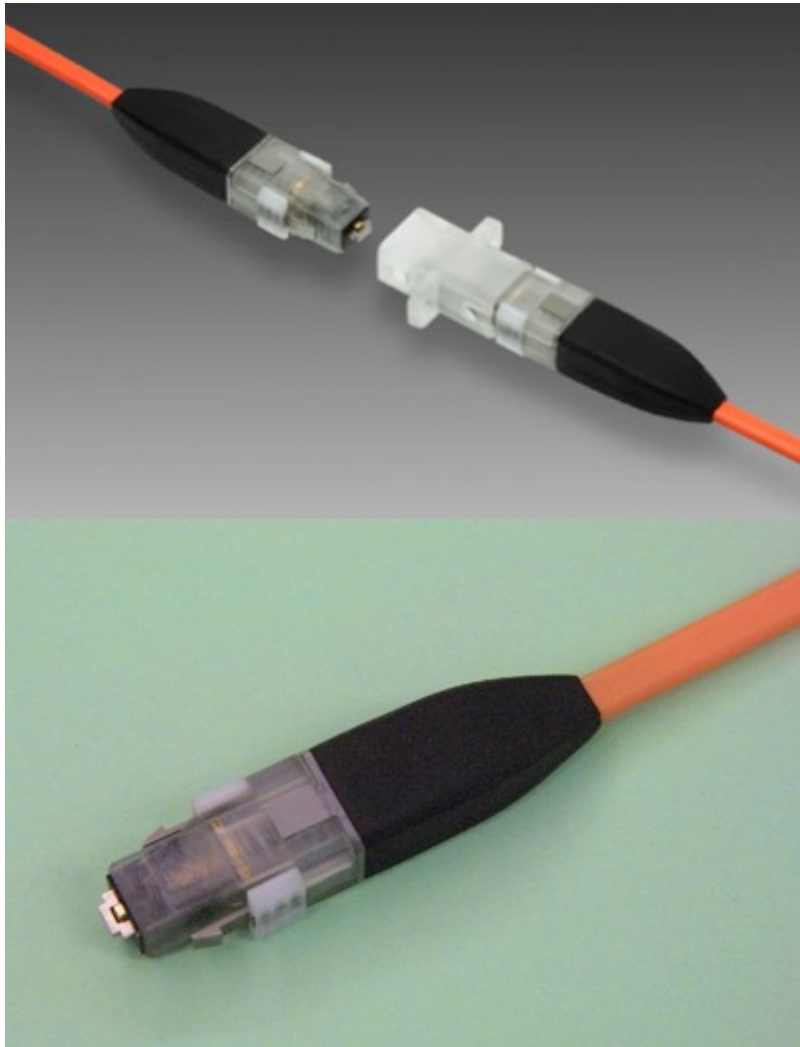


Individuelle Faserausrichtung durch V-Nuten

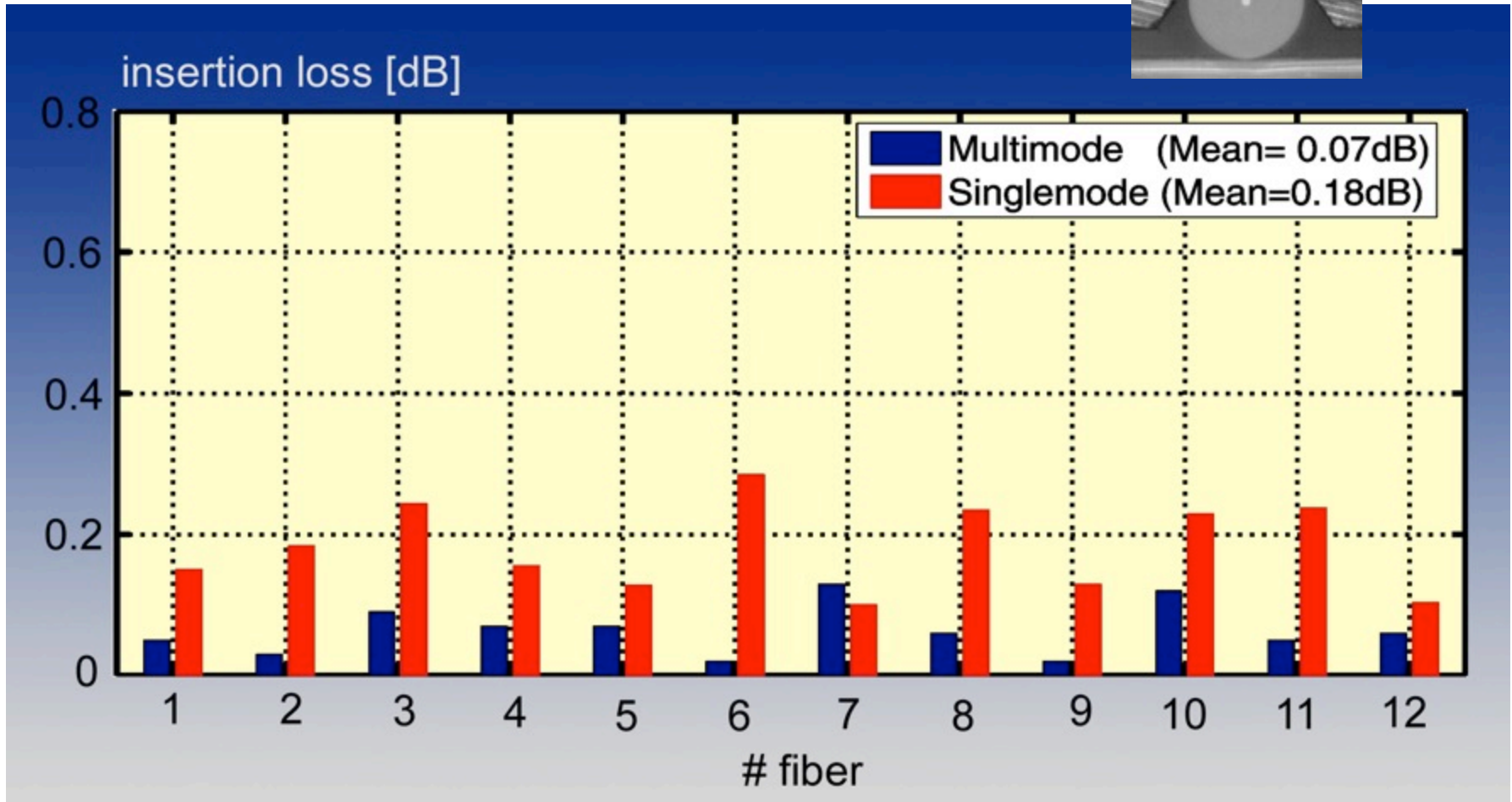
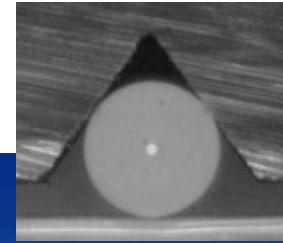


- ➔ Geringe Einfügedämpfung $IL = 0.1$ to 0.25 dB
- ➔ Hohe Gleichförmigkeit der Kanäle

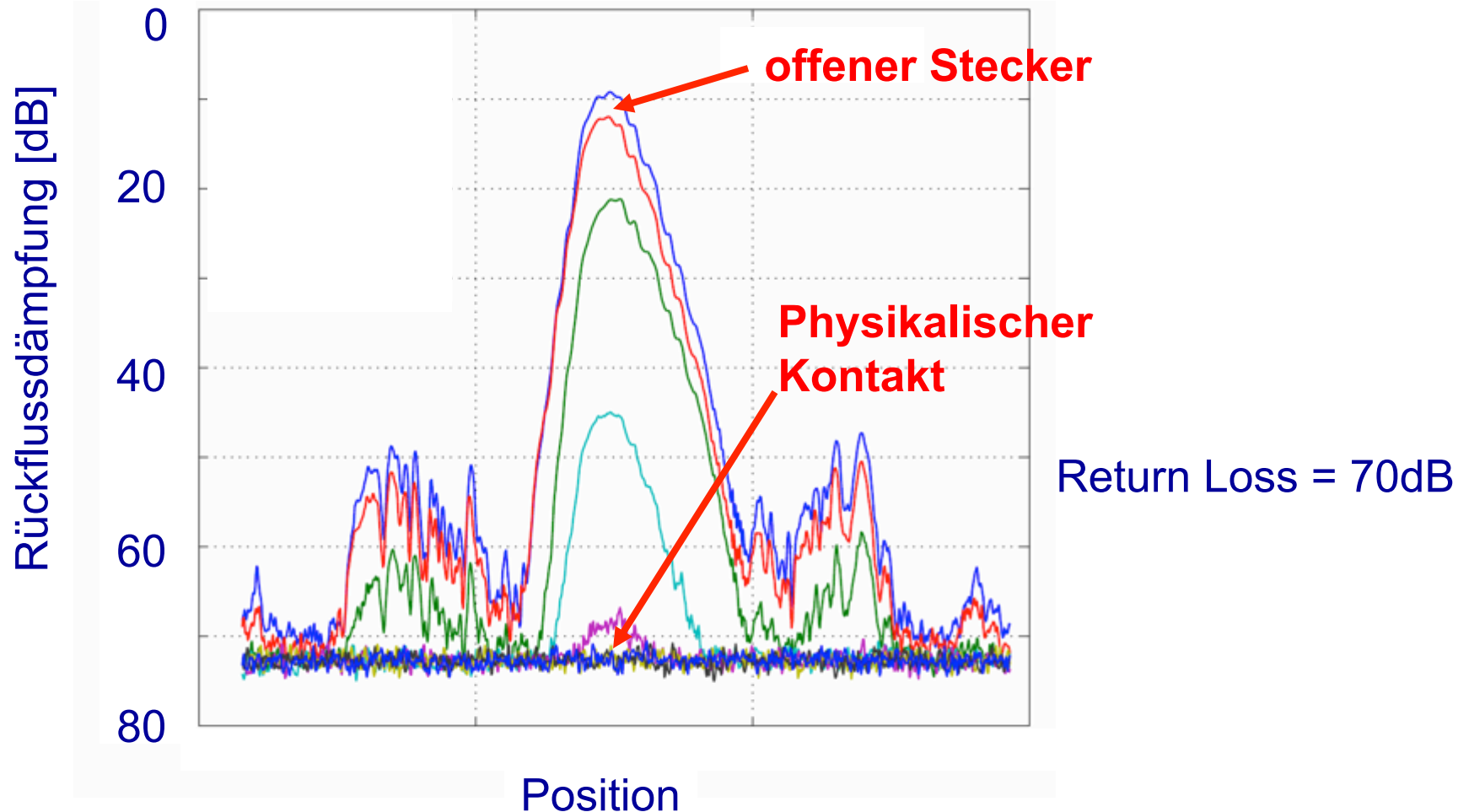
F&E Prototyp



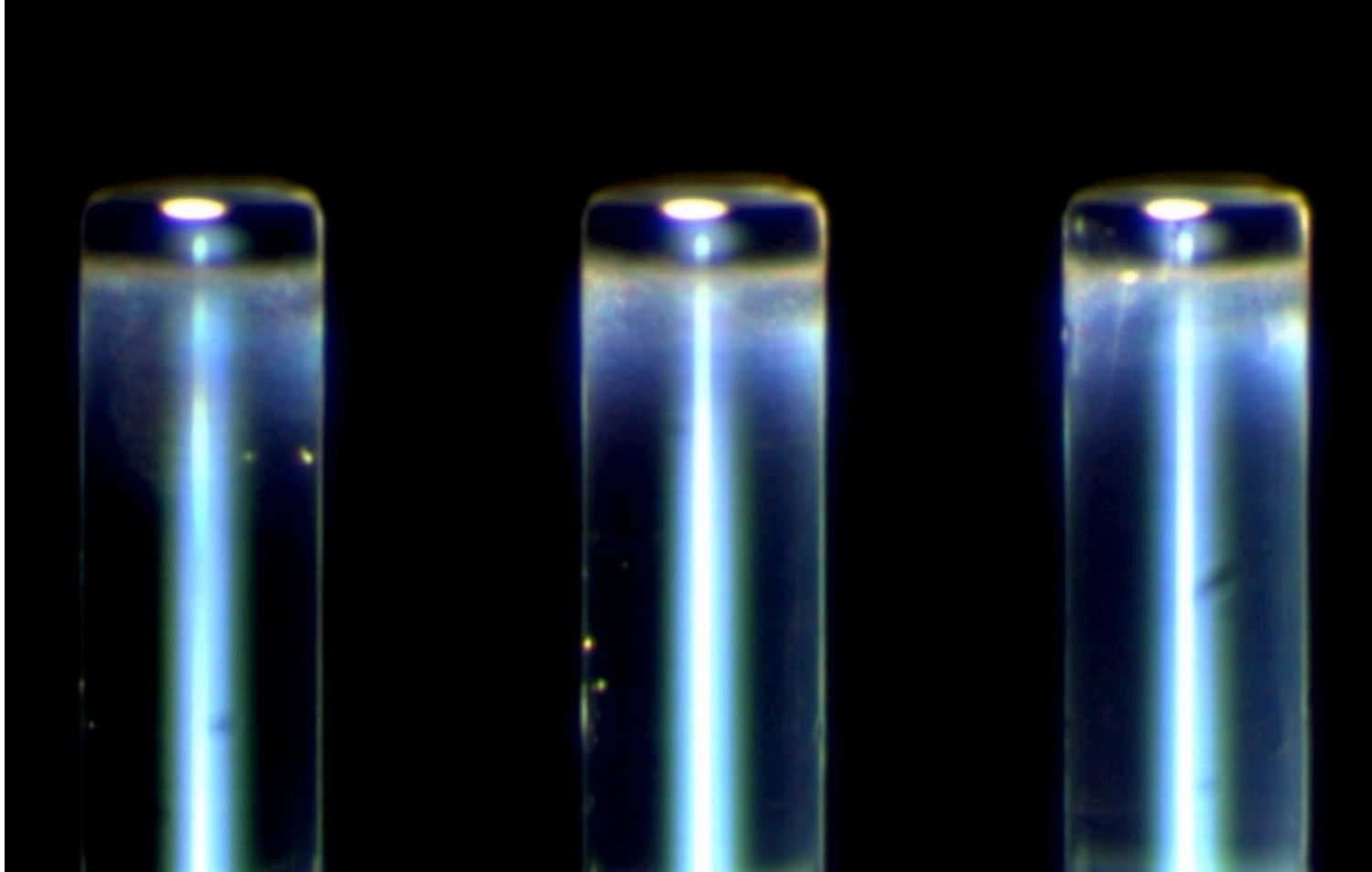
Einfügedämpfung



Rückflussdämpfung



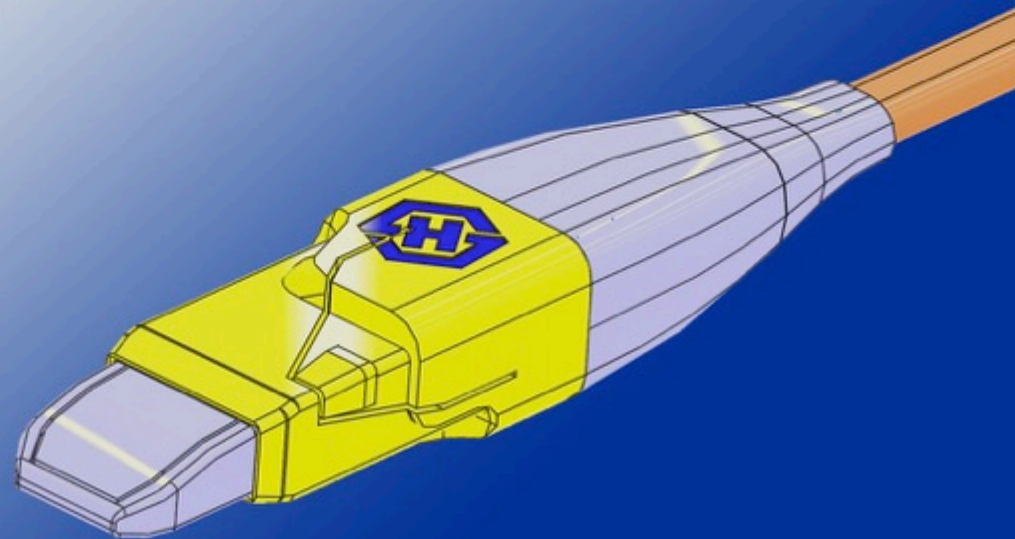
Laser-Cleaven



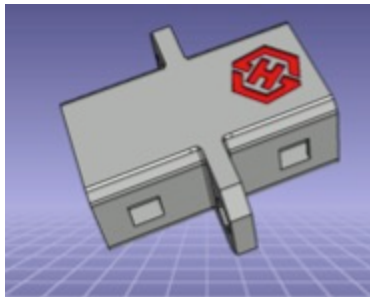
III FiberBus

**NEXT BENCHMARK FOR OPTICAL MULTIFIBER CONNECTOR
ADVANCED PERFORMANCE FOR MULTIMODE AND SINGLEMODE**

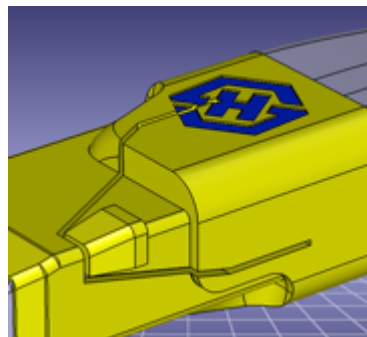
- Up to 12 fibers
- Advanced fiber alignment
- Low insertion loss
- Superior uniformity
- Cost-effective
- Small Form Factor



Zusammenfassung

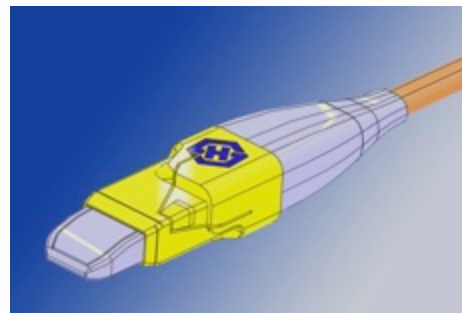


- Kupplung mit Schutzklappen
- Dual LC Abmessungen



Patentierte Verriegelung

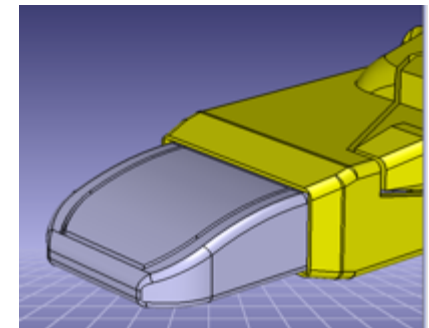
Mech. & opt.
kompatibel zu MPO



Werkzeug zur
einfachen Reinigung

- Geringer IL
- Hoher RL
- Hohe Zuverlässigkeit

Kosteneffizient
SM & MM



Automatische
Schutzklappen