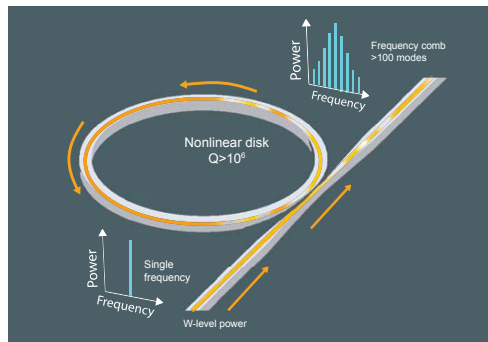
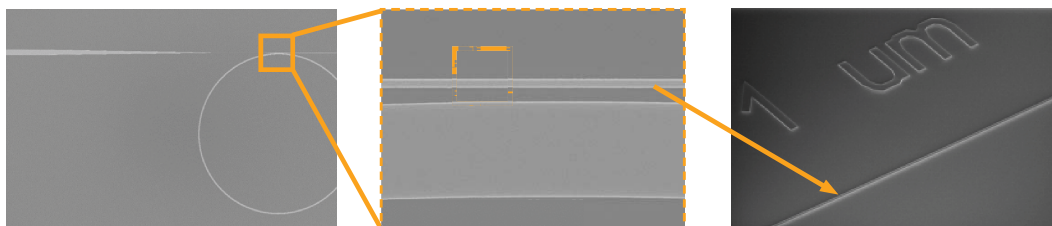


3 million phone conversations/s! Optical disk-resonator



A coherent multi-frequency emitter able to perform ultrahigh-speed data transmission:

> 320 Gigabits/s
and potentially >Terabits/s



Integrated resonator (Ø2mm) fabricated with silicium

Optical guide

World record!

3x72Gb/s 16-QAM error-free repeaterless optical transmission on 80 km (320Gb/s back-to-back) performed by a resonator (partner: Karlsruhe Institute of Technology)

Key advantages:

- Chip-scale component
- Low-cost and scalable
- Low power consumption (~ mW)
- Ideal for components used in Fiber To The Home

A breakthrough solution for:

- Wavelength Division Multiplexing telecoms
- Microwave photonics
- Spectroscopy for health (bacteria screening) and environment (atmospheric species sensing)
- Integrated quantum information