

Profile Perturbation of Fiber Profile

Example of Fiber with a Kink

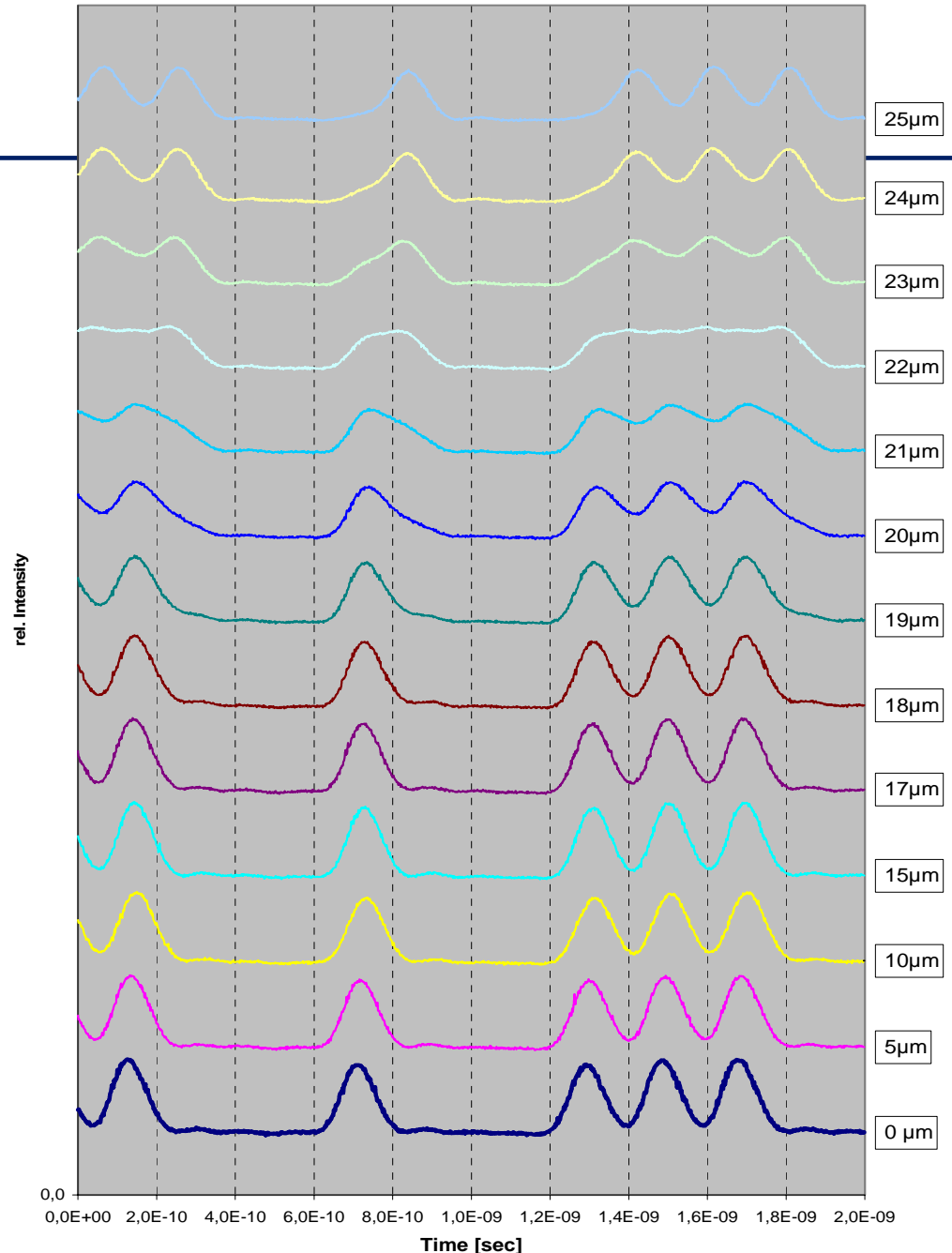
- We measured a OM1 fiber in the lab which seems to be an excellent example of a fiber with a kink:
 - OFL Bandwidth 875MHz*km @ 1300nm
 - very good profile from core center to about 19 μ m radius
 - Strong change of pulse shape from 20 μ m to 23 μ m offset
 - Change from precursor (20-21 μ m) to postcursor (22-23 μ m)

- Observation of polarization sensitivity of the pulse shape at offsets of 20 – 23 μ m

"DMD" Measurement with Bit Pattern of Kink-Fiber

- Measurement of transmission behavior over length of 270m with controlled offset launch.
- Traces for a 16 bit word "1000001010100000" for various offsets.
- Strong pulse change within a small offset range 20 – 23 μ m

270m OM1 Fiber "DMD" Pattern Response



Fiber with a Kink Polarization Effect

- Offset launch in region of 20 – 23 μm of the fiber sample
- no movement or any modification of the transmission line but
- Change of bit pattern with the controlled change of polarization:

