

Introduction to Thorlabs OCT instruments

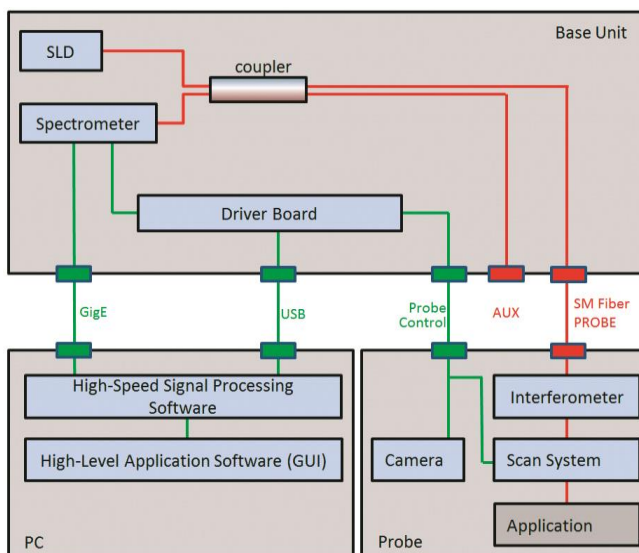
Martin Krahl

Thorlabs, Germany



GANYMEDE HR

- Instrument type: Spectral Domain OCT
- Detector system: Diffraction Grating Spectrometer with linear CCD detector
- Light Source: SLD 800nm – 1000nm
- Power at object: 1.5mW typical
- Axial (in-depth) resolution in varnish.: $\delta z = 2.3 \mu\text{m}$
- Image depth in air: 2mm
- Transverse (in-plane): $\delta x \sim 4\mu\text{m} / \sim 8\mu\text{m}$ (LSM02-BB/ LSM03-BB)
- Sensitivity: up to 91dB
- Distance to the object: 7.5mm / 25.1mm
- Field of view: 6mm x 6mm / 10mm x 10mm
- A/D converter: 12 bits
- Acquisition rate:
 - $33\mu\text{s} - 800\mu\text{s} / \text{A-scan}$
 - $\geq 0.17 \text{ s} / \text{2D image}$ (cross section, 5000 A-scans)
 - real time monitoring: 29 frames/s x 512 A-scans



TELESTO

- Instrument type: Spectral Domain OCT
- Detector system: Diffraction Grating Spectrometer with InGaAs Diode Array Detector
- Light Source: SLD 1230nm – 1420nm
- Power at object: 4.5mW typical
- Axial (in-depth) resolution in varnish.: $\delta z = 4.3 \mu\text{m}$
- Image depth in air: 2.5mm
- Transverse (in-plane): $\delta x \sim 6.7 \mu\text{m} / \sim 13 \mu\text{m}$ (LSM02 / LSM03)
- Sensitivity: up to 106dB
- Distance to the object: 7.5mm / 25.1mm
- Field of view: 6mm x 6mm / 10mm x 10mm
- A/D converter: 12 bits
- Acquisition rate:
- $11 \mu\text{s} - 181 \mu\text{s} / \text{A-scan}$
- $\geq 55 \text{ms} / 2\text{D image}$ (cross section, 5000 A-scans)

