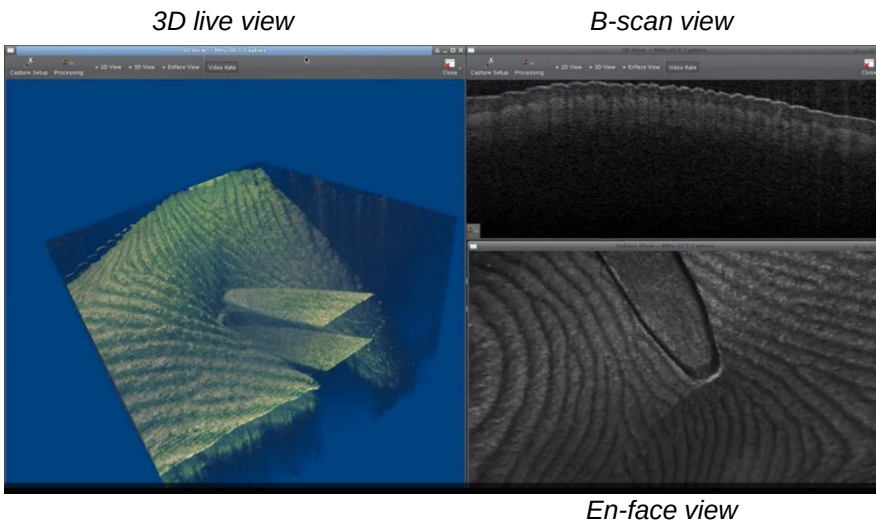


OMES | Optores Megahertz OCT System

OMES is a complete OCT imaging solution that combines Optores' groundbreaking FDML laser and GPU processing technology into a turnkey research OCT system. With speeds beyond 1.5 MHz, OMES provides "4D" video-rate OCT to continuously visualize three-dimensional sample structure.

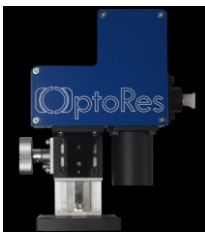


The Optores OCT imaging software is a powerful solution for simultaneous visualization of various views of the acquired volume.

True research-grade access to raw data is available.

OMES is a desktop style system consisting of an FDML swept laser, the OMES OCT imaging module, a configurable sample arm and a high-performance PC workstation.

OCT scan head



FDML laser



OMES imaging module



Powerful 4D-OCT

- More than 20 OCT volumes per second, continuously acquired and displayed

1060 nm / 1310 nm / 1550 nm

- Chose OMES' wavelength depending on your application

Full access to data

- While OMES is a turnkey system, the user can access OCT data in all desired formats (raw, processed, amplitude, phase)

Blazing MHz speed

- OMES is the only commercial OCT system to process and visualize more than one million A-scans per second

Specifications

Parameter	Min	Typ	Max	Unit	Condition
A-Scan rate		1.6 0.8		MHz	Variant -4B Variant -2B
B-Frame rate		4		kHz	As specified by customer; Example: 4 kHz bidirectional frame rate for 300 A-Scans per B-frame, 1.5 MHz A-Scan rate and 80% scan duty cycle
Volume rate		20		vps ¹	Depends on B-frame rate
Power on the sample	10	20	>30	mW	User-adjustable
Sensitivity		>100		dB	12 mW power on the sample, 1.5 MHz A-Scan rate
Center wavelength		1060 1315 1550		nm	Variant -1060 Variant -1310 Variant -1550
Bandwidth	100	110	120	nm	
Axial / depth resolution (air)		15		μm	110 nm bandwidth at 1310 nm
Axial / depth resolution (water) ²		11.5		μm	110 nm bandwidth at 1310 nm
Imaging depth range (air) ³		4.7		mm	110 nm bandwidth at 1310 nm
Lateral / transverse resolution ⁴		33		μm	As specified by user; typical value calculated with f = 40 mm sample arm lens
Lateral field of view (X x Y)		10 x 10		mm	As specified by customer

1. Volumes per second
2. $n=1.33$
3. Limited by analog bandwidth; larger depth achievable with smaller tuning range
4. $1/e^2$ of the beam diameter at focus



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