deepLive
by DAMAE MEDICAL

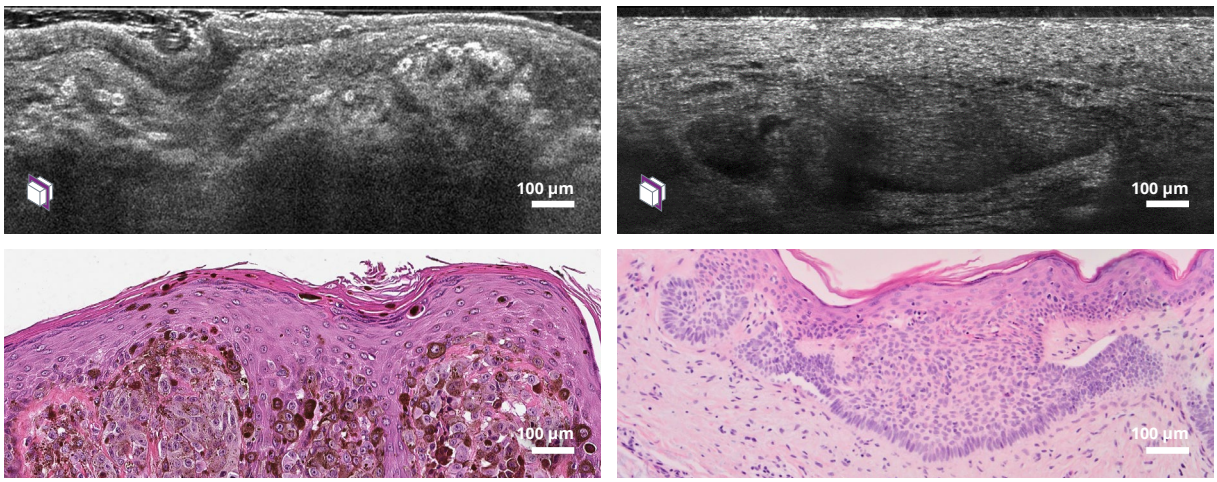
OVERVIEW & SPECIFICATIONS

LINE-FIELD CONFOCAL OPTICAL COHERENCE TOMOGRAPHY (LC-OCT)

DAMAE Medical develops deepLive™ medical device, the new best-in-class imaging system pairing penetration and cellular resolution in 3D.

deepLive™ integrates LC-OCT technology which provides a unique 3D imaging modality, allowing the user to switch from a histology-like vertical mode to a confocal-like horizontal mode, and to record a 3D stack of tissue volumes in situ. The integrated live dermoscopic camera allows instant positioning and precise navigation over the different areas of the lesion.

deepLive™ is adapted to the imaging of multiple skin conditions, promoting efficient, reassuring and non-invasive patient management.



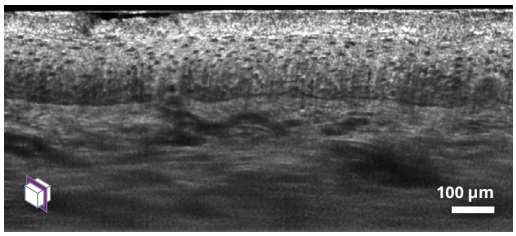
LC-OCT vertical images of a melanoma (left) and a superficial basal cell carcinoma (right) with corresponding H&E histopathology images

Images courtesy of Prof. Perrot, University Hospital of Saint-Etienne, France and Prof. Suppa & Prof. del Marmol, Hôpital Erasme, Université Libre de Bruxelles, Belgium. Journal of Biomedical Optics (2018): «Line-field confocal optical coherence tomography for high-resolution noninvasive imaging of skin tumors» (DOI: 10.1117/1.JBO.23.10.106007)

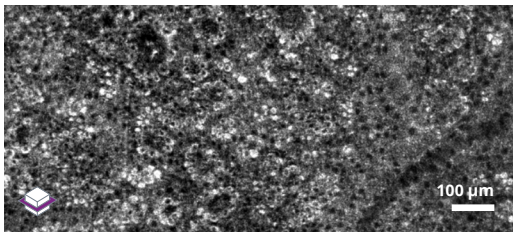
DAMAE MEDICAL
see beyond appearances

1-CLICK SWITCH BETWEEN 2 LIVE MODES & FAST 3D ACQUISITION

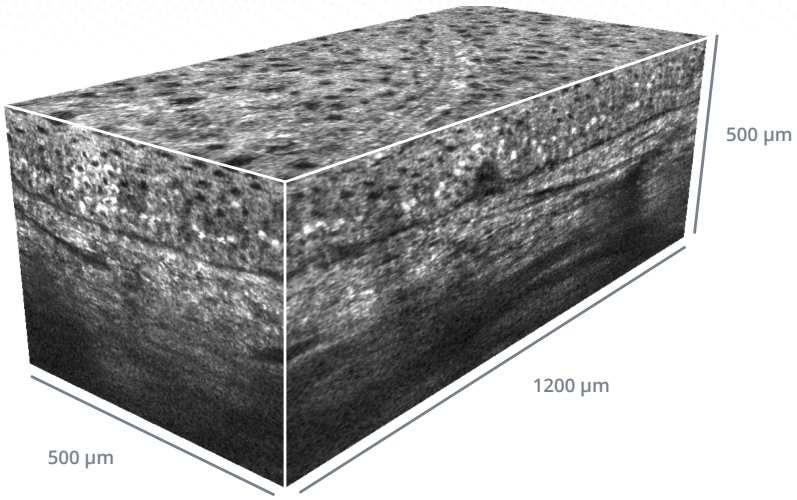
Vertical live mode



Horizontal live mode



3D stack with isotropic cellular resolution



LC-OCT vertical (top left), horizontal (bottom left) images and 3D stack (right) of healthy human skin in vivo

Biomedical Optics Express (2020): «Dual-mode line-field confocal optical coherence tomography for ultrahigh-resolution vertical and horizontal section imaging of human skin in vivo» (DOI: 10.1364/BOE.385303)

SPECIFICATIONS OF deepLive

PROBE

MAXIMAL RESOLUTION	AXIAL < 1.3 µm LATERAL < 1.3 µm
PENETRATION DEPTH	> 400 µm
3D STACK SIZE	1.2 x 0.5 x 0.5 mm
INTEGRATED DERMOSCOPY	RESOLUTION: 5 µm FIELD OF VIEW: 2.5 mm
FRAME RATE	LIVE VISUALISATION: 8 FPS 3D STACK ACQUISITION: UP TO 26 FPS

OPTICS

LC-OCT LIGHT SOURCE	SUPERCONTINUUM LASER, CLASS 1 ACCORDING TO EN 60825-1
LASER WAVELENGTH	600-900 nm
OPTICAL OPERATING POWER	< 15 mW
DERMOSCOPY LIGHT SOURCE	WHITE EMISSION LEDS RISK GROUP 0 ACCORDING TO EN 62471
LED WAVELENGTH	400-700 nm

GENERAL

FRONT-PANEL CONNECTORS	USB 3.0, ETHERNET, MINI DISPLAY PORT
MEDICAL DISPLAY	EIZO TOUCH SCREEN 23" FULL HD 1920 x 1200 pixels
CERTIFICATIONS	CE-MARKED

THE NEW BEST-IN-CLASS SOLUTION FOR DIGITAL OPTICAL BIOPSIES

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