EXALOS 1310nm Swept Sources

Applications

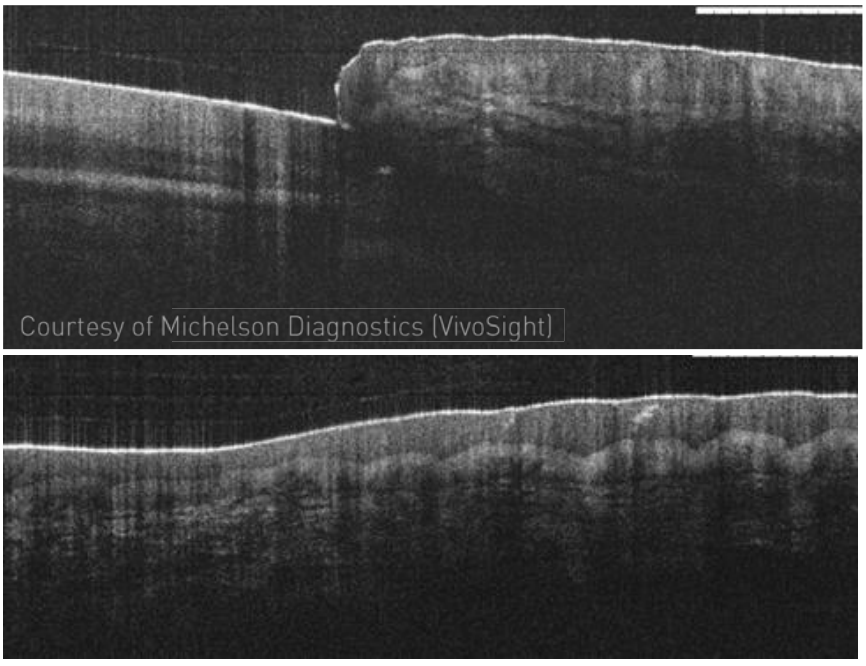
- SS-OCT for dermatology, cardiology, gastro-intestinal (GI), ophthalmology
- SS-OCT for industrial applications

Product Features

- Compact OEM module in 3.5" HDD format
- Wide selection of sweep rates (from 2 kHz to 50 kHz or up to 150 kHz)
- Wide sweep range (up to 150 nm)
- Long coherence lengths (up to 10 mm)
- High output power (up to 40 mW)
- Analog electrical k-clock output
- Various mounting options

Description

EXALOS swept lasers at 1310 nm provide a wide sweep range of up to 150 nm covering the range from 1230 to 1380 nm. The free-space LEGO®-like external laser cavity architecture allows for rapid prototyping and for a high degree of custom swept sources in order to address a wide range of applications.
An existing standard product at 1310 nm is a 20-kHz swept source that can be offered in an ultra-compact 3.5" HDD form factor. Other sweep rates and output characteristics are available upon request.



SS-OCT images of finger nail and skin taken with ESM340012

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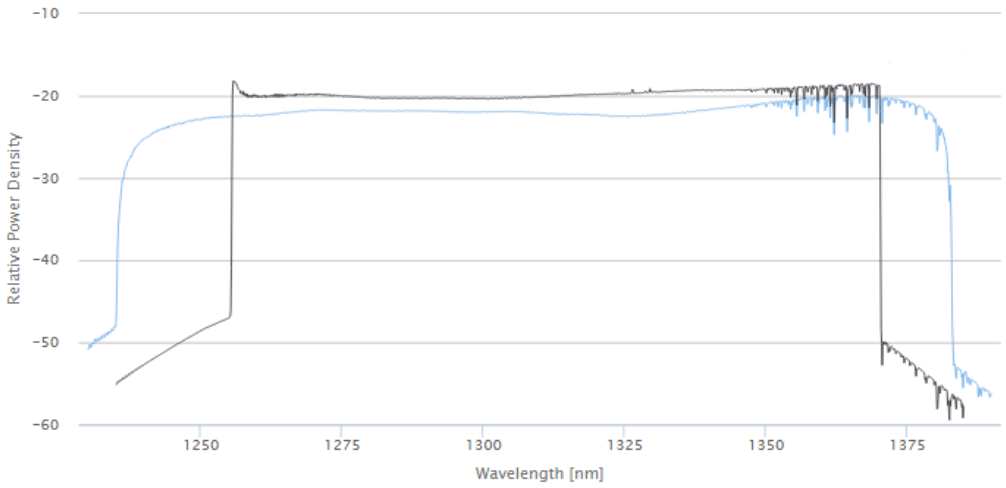
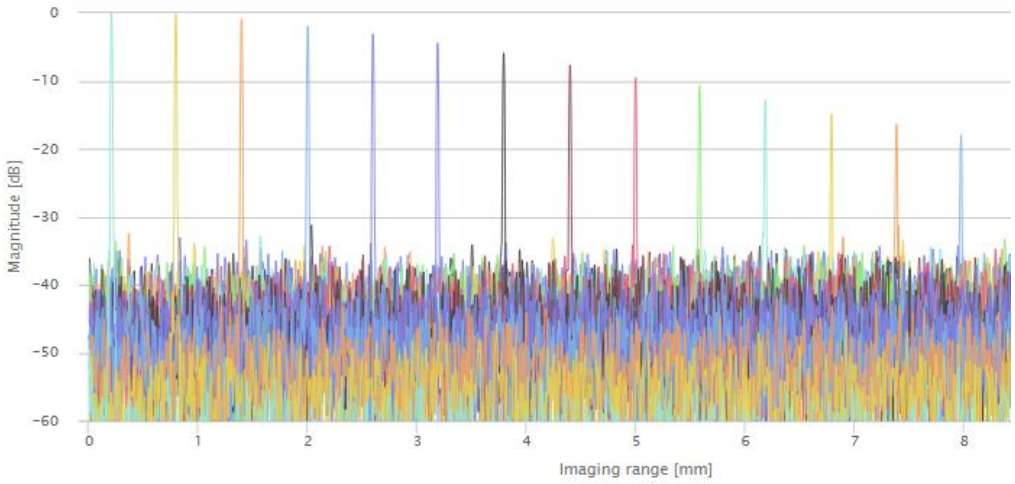
1310nm ESM @ 110nm / 150nm				
Swept Source Parameters	Min	Typ	Max	Unit
Center Wavelength	1300	1310	1320	nm
Sweep Range (-10dB)	100/140	110/150		nm
A-scan frequency	19	20	21	kHz
Coherence length (in air)[1]	8/6	9/7		mm
6-dB Amplitude Fall-off	3/2	4/3		mm
Average output power[2]	20	25		mW
Product Code	ESM340016-00 / ESM340012-00			

Sweep Spectrum



PSF



Notes:
1 The coherence length is the optical path difference (OPD) at which the amplitude of the optical fringe signal drops to 50% of its initial value for OPD=0 mm. Typically the so-called *image depth* is half the coherence length value.
2 Under sweep operation. For a sweep duty cycle of 100%.

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