

EXALOS 1060nm Swept Sources

Applications

- Swept source OCT for ophthalmology or other applications
- Seed laser for OPO
- Metrology and sensing

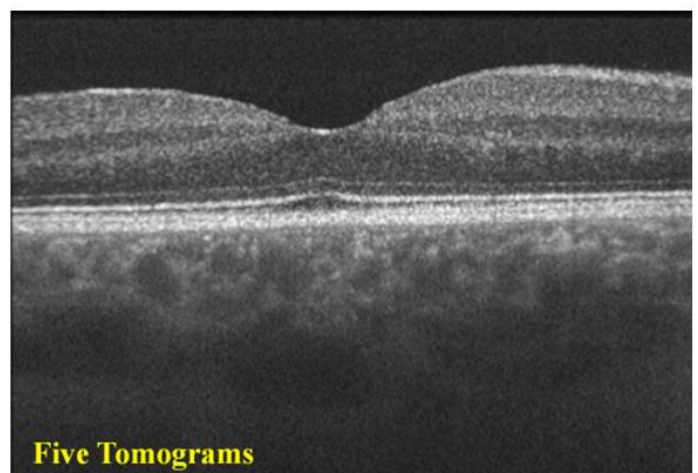
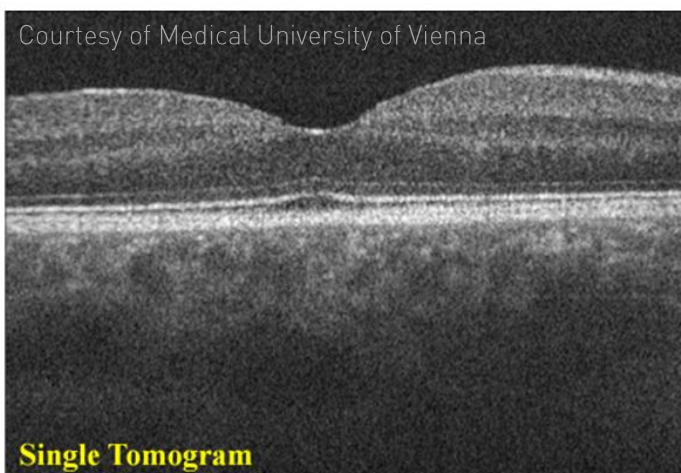
Product Features

- Compact OEM module in 3.5" HDD format
- Wide selection of sweep rates (from DC to 50 kHz or up to 150 kHz)
- Wide sweep range (up to 130 nm)
- Long coherence lengths (up to 25 mm)
- High output power (up to 20 mW)
- Analog electrical k-clock output
- Various mounting options

Description

EXALOS swept lasers at 1060 nm provide an imaging performance similar to existing SD-OCT systems at 840 nm but at the low-absorption window from 1000 to 1100 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.

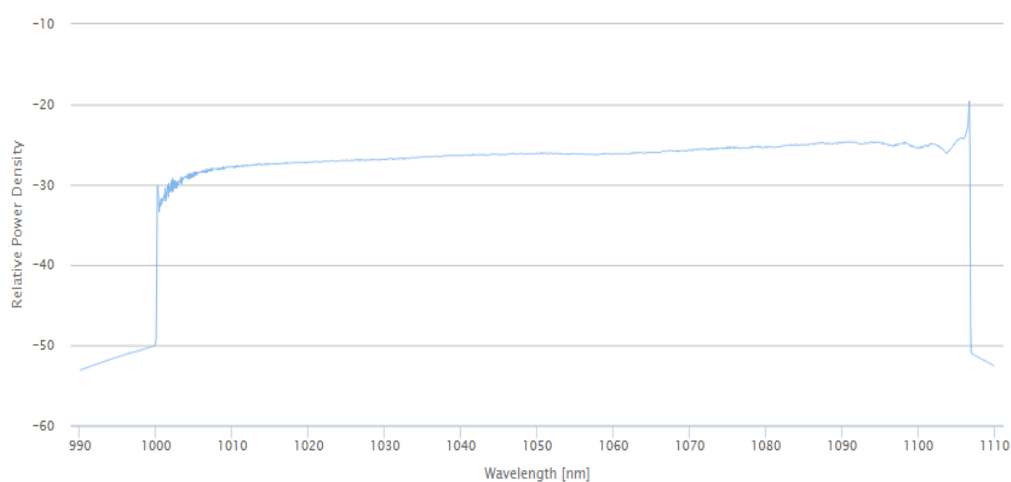
An existing standard product at 1060 nm is a 50-kHz swept source that can be offered in an ultra-compact 3.5" HDD form factor. Other sweep rates and output characteristics are available upon request, including DC-tunable lasers in this wavelength range.



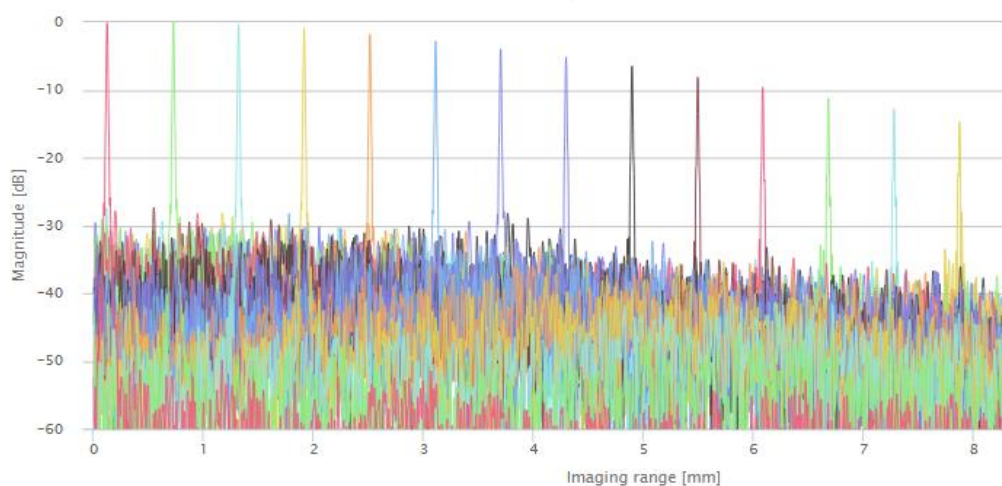
1050nm ESM @ 50kHz

Swept Source Parameters	Min	Typ	Max	Unit
Center Wavelength	1040	1055	1070	nm
Sweep Range (-10dB)	80	100		nm
A-scan frequency	48	50	52	kHz
Coherence length (in air) ¹	8	9		mm
6-dB Amplitude Fall-off	3	4		mm
Average output power ²	12	15	18	mW
Product Code	ESM340020-00			

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%.