

EXALOS 1220nm Swept Sources

Applications

- Spectroscopy
- Spectroscopic OCT
- Ultra-high resolution OCT

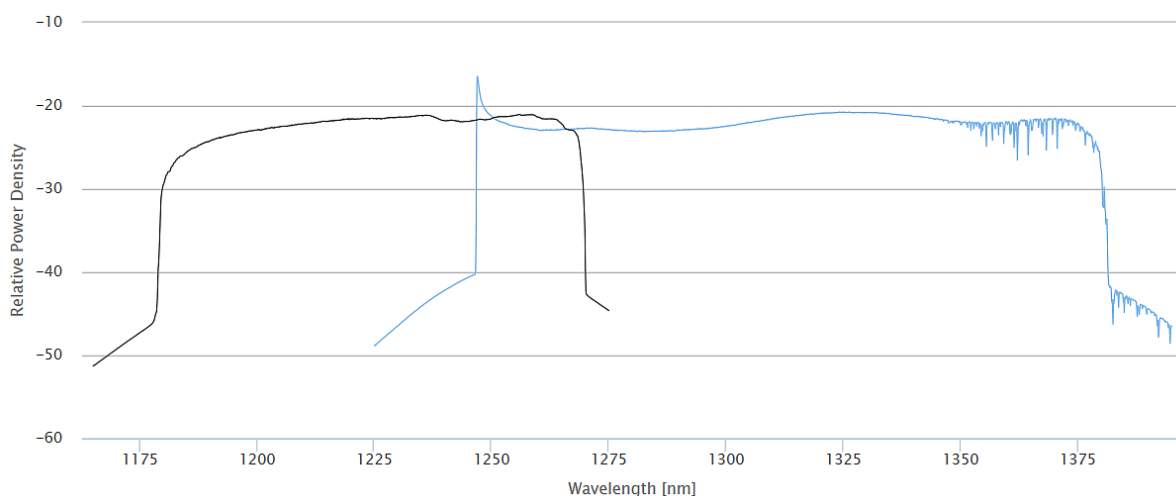
Product Features

- 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 90 nm)
- Small linewidth (100 pm)
- High output power (up to 15 mW)
- Analog electrical k-clock output
- Various mounting options

Description

EXALOS is the only company that is offering swept lasers at 1220 nm with a sweep range of minimum 80 nm and ranging from ~1170 nm to ~1270 nm. Such sources can be used for spectroscopy applications or for optical coherence tomography (OCT). Especially in combination with a 1310-nm swept source, those swept lasers can provide an ultra-high axial resolution that exceeds standard swept lasers at 1310 nm.

An existing standard product at 1220 nm is a 2-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.

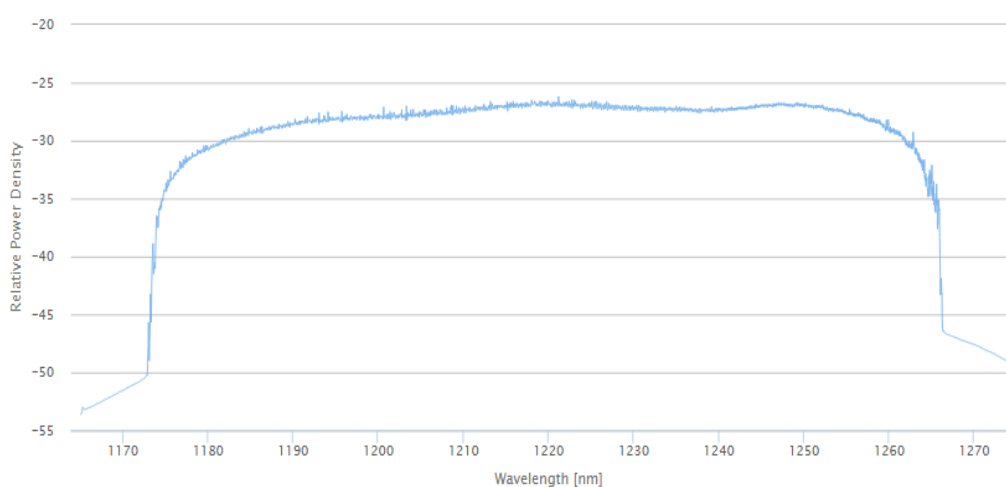


Optical spectrum of a spectrally-combined 200nm swept source, consisting of a 1220nm master laser and a 1310nm slave laser that are working synchronously to provide ultra-high axial resolution

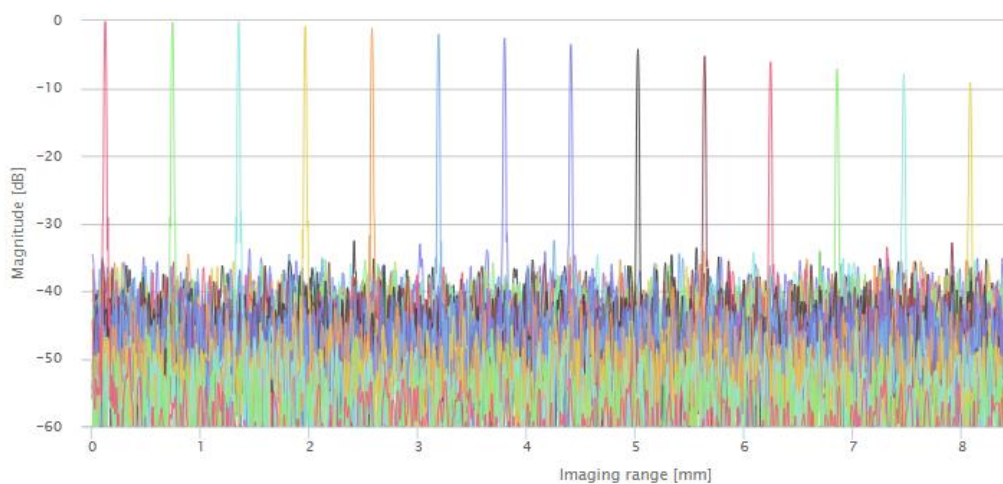
1220nm ESM @ 2kHz

Swept Source Parameters	Min	Typ	Max	Unit
Center Wavelength	1210	1220	1230	nm
Sweep Range [-10dB]	80	90		nm
A-scan frequency	1.9	2.0	2.1	kHz
Coherence length (in air) ¹	8	10		mm
6-dB Amplitude Fall-off	3	4		mm
Average output power ²	12	15	18	mW
Product Code	ESM340010-00			

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%.