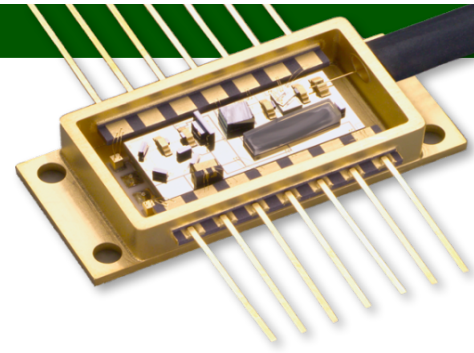




AXSUN
TECHNOLOGIES



SWEPT LASERS FOR OCT

1060 & 1310 nm HIGH SPEED SWEPT LASER ENGINES

AXSUN SWEPT LASERS

provide an optimal balance of tuning bandwidth, output power, sweep speed, and coherence length to enable **cutting-edge performance** in next-generation Swept-Source Optical Coherence Tomography (SS-OCT) systems.

A UNIQUE DESIGN

based on our micro-optical integration capabilities and patented MEMS tunable filter, the highly scalable Axsun laser platform is the **preferred choice** for OCT system vendors in multiple markets.

INTEGRATED SOLUTIONS

Axsun laser modules are paired with driver electronics and optional k-clock, balanced photoreceivers, interferometers, and high speed data acquisition electronics in compact and **highly cost-effective** OEM configurations or benchtop enclosures.

RELIABILITY & SUPPORT

Axsun products have logged **billions of hours** in telecom and imaging systems around the world since 2001. Our products meet rigorous Telcordia qualification standards and are supported by a team with **decades of expertise** in laser and OCT system technology.



OEM configuration shown with optional data acquisition board



Benchtop enclosure



NEW

Small Form Factor OEM configuration with EMI shield

LARGEST SELECTION OF LASER SPECIFICATIONS AVAILABLE

Center Wavelength	1310 nm				1060 nm		
	50	100	100	200	100	200	1-30
Sweep Rate, kHz	50	100	100	200	100	200	1-30
Tuning Range, nm (-10 dB)	110	110	140	100	110	100	30
Coherence Length, mm ¹	28	20	20	16	12	10	50-80
Average Output Power, mW	20	20 ⁽³⁾	20	18	15	15	15
Scan Depth in Air, mm ²	5	5	5	5	3.7	3.7	
Common Applications	Anterior Segment Ophthalmic Imaging, Endoscopy, Dermatology, Cardiology, Nondestructive Testing, etc...				High Speed Retinal Imaging		Biometry, Topography
1. Measured as double-sided 6dB fringe contrast roll-off 2. With optional k-clock output 3. High power (>40mW) option available				Typical specifications shown. Custom configurations available on request.			

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1060 & 1310 nm SWEPT LASERS FOR OCT

FEATURES & AVAILABLE OPTIONS

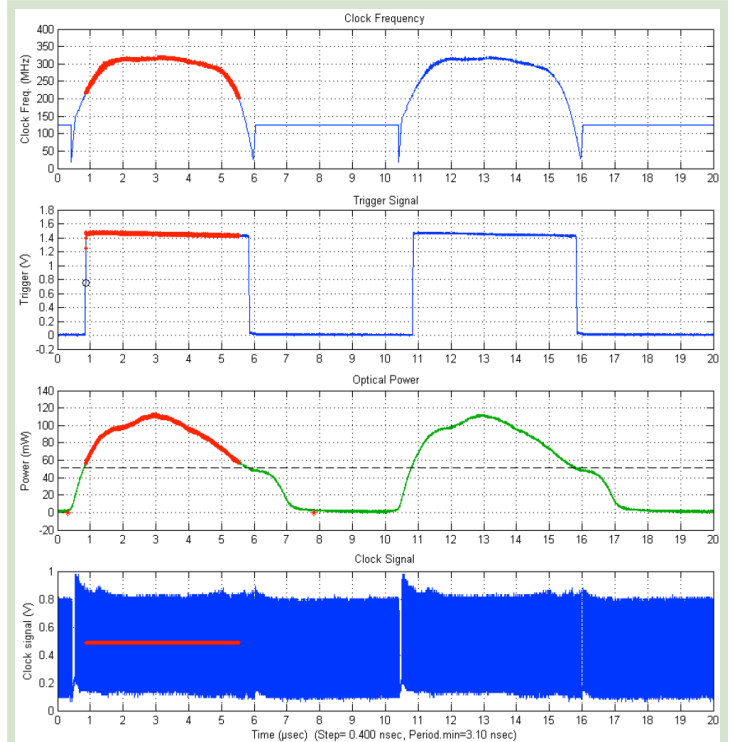
Configured in Standard OEM ¹ , Small Form Factor OEM ² , or Benchtop Enclosure ³
Emission control via hardware line or software (Windows XP or later)
Latching hardware-based emission interlock and LED emission indicator
Quasi-linear laser sweep trajectory; ≈42-55% sampled duty cycle
Optional K-clock Output for direct A/D sampling (1 & 3 only)
Phantom sample clock generated during laser fly-back for compatibility with Axsun's and other common third-party data acquisition boards
Programmable k-clock delay to manage time-of-flight difference between k-clock and main OCT interferometers
Optional Balanced Photoreceivers (single or dual-channel) (1 only)
Optional 500MS/s, 12-bit Data Acquisition Board (1 only)
2-Channel DAQ with 1G Ethernet, PCIe, and USB 3.0 interface
1-Channel DAQ with CameraLink interface (to PCIe frame grabber)
Optional Power Monitor (1 only), Optional EMI Shield (1 & 2 only)
Optional OCT Mach Zehnder Interferometer and reference Variable Delay Line (1 only)

INTERFACE SPECIFICATIONS

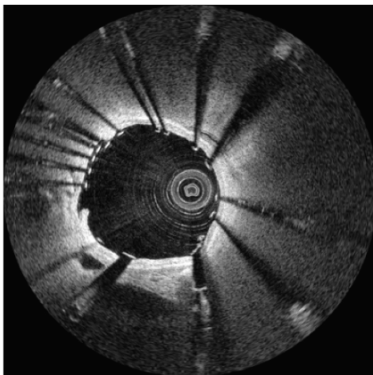
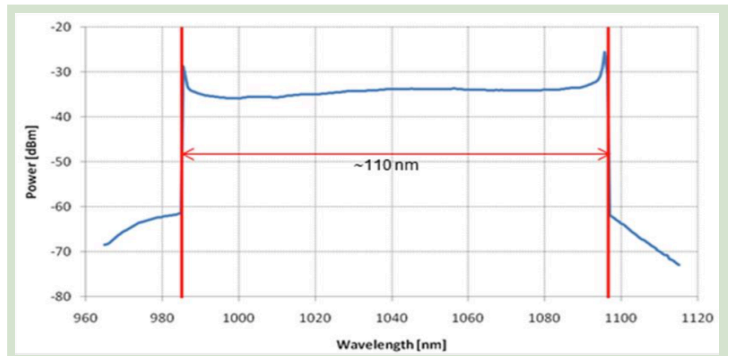
Optical Output	OEM: ≈1m 900μm-jacketed fiber, FC/APC connector
	Benchtop: FC/APC bulkhead
Sweep Trigger Output	Standard OEM: LVDS (1.0-1.4V), 100Ω termination, SATA*
	Benchtop & SFF OEM: LVTTL (0-3.3V), unterminated, SMA
K-clock Output	Standard OEM: ECL (1.6-2.4V), 100Ω termination, SATA*
	Benchtop: 0.2-0.8V, 50Ω termination, SMA
USB 2.0 Control & Diagnostics	OEM: mini-B receptacle
	Benchtop: type B receptacle
Power Consumption	12 W typical at 25°C, 12 V _{DC} supply included
Mechanical Dimensions	¹ Standard OEM: 54 x 144 x 178 mm (2.1 x 4.5 x 7")
	² SFF OEM: 25 x 85 x 110 mm (1 x 3.5 x 4.5")
	³ Benchtop: 76 x 152 x 208 mm (3.1 x 6 x 8.2")
Environmental Requirements	OEM: maintain heatsink @ 10-45°C, 10-90% humidity NC
	Benchtop: 10-35°C, 10-90% humidity NC

*Benchtop signal levels available on OEM configuration with included interface board

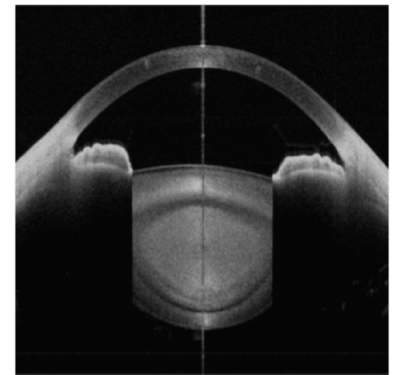
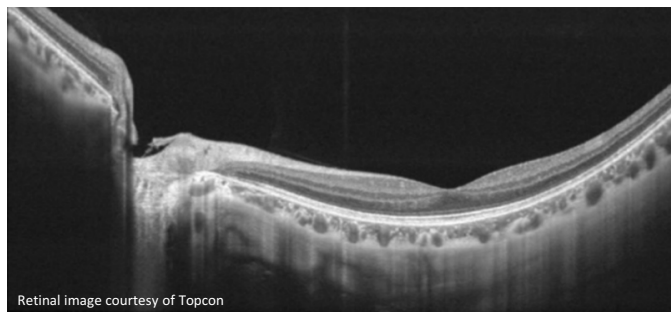
TYPICAL OSCILLOSCOPE CAPTURE (100 kHz)



TYPICAL OPTICAL SPECTRUM (1060 nm)



CONTACT US WITH SPECIAL REQUESTS!



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