

# OCT-Prime



## Spectrometers for Spectral Domain Optical Coherence Tomography (SD-OCT)

OCT-Prime is a high-performance, compact, and durable spectrometer designed for a wide range of SD-OCT measurement applications. OCT-Prime is well-suited for both OEM integration and stand-alone use, and comes with software drivers for easy USB3 system interfacing. Several different models are available to match with a variety of OCT imaging needs.

### SPECIFICATIONS:

	OCT-Prime 840-200	OCT-Prime 840-100	OCT-Prime 840-50
<b>OCT System</b>			
Axial Resolution	3.1 $\mu\text{m}$ (in air) ~2.3 $\mu\text{m}$ (in tissue)	6.2 $\mu\text{m}$ (in air) ~4.5 $\mu\text{m}$ (in tissue)	12.5 $\mu\text{m}$ (in air) ~9.0 $\mu\text{m}$ (in tissue)
Maximum Imaging Depth	1.8 mm (in air) ~1.3 mm (in tissue)	3.6 mm (in air) ~2.6 mm (in tissue)	7.2 mm (in air) ~5.2 mm (in tissue)
A-scan rate	80 kHz (11 bit mode) 40 kHz (12 bit mode)	80 kHz (11 bit mode) 40 kHz (12 bit mode)	80 kHz (11 bit mode) 40 kHz (12 bit mode)
Detector pixels	2048	2048	2048
<b>Optical</b>			
Spectral bandpass	740 nm – 940 nm	790 nm – 890 nm	815 nm – 865 nm
Spectral resolution	0.13 nm FWHM (< 2 pixels)	0.080 nm FWHM (< 2 pixels)	0.042 nm FWHM (< 2 pixels)
System optical efficiency (including detector QE)	>25%	>25%	>18%
Optical input	780-HP single mode fiber with FC/APC connector	780-HP single mode fiber with FC/APC connector	780-HP single mode fiber with FC/APC connector
Input source numerical aperture	0.13	0.13	0.13
<b>Electrical</b>			
Data interface	USB3 Vision	USB3 Vision	USB3 Vision
Triggering	TTL level input for line or frame triggering	TTL level input for line or frame triggering	TTL level input for line or frame triggering
<b>Mechanical</b>			
Size	5.9" x 4.3" x 2.8" (149 x 109 x 71 mm)	8.3" x 3.7" x 2.5" (212 x 94 x 64 mm)	10.8" x 4.3" x 2.5" (275 x 110 x 64 mm)
Weight	1.39 kg (3 lbs)	1.56 kg (3.4 lbs)	2.1 kg (4.6 lbs)