AlPha™ Ultra-High Resolution OCT Spectrometer

An 820–860 nm spectrometer designed for ultra-high-resolution OCT applications

The AlPha™ Series is an ultra-high-resolution OCT spectrometer covering a wavelength range of 820–860 nm. Featuring a fully transmissive grating, proprietary lens design, and patented alignment mechanism, the Alpha Series delivers 0.02 nm spectral resolution. Equipped with high-speed e2V Octoplus CMOS line-scan cameras operating at 20, 80, 130, or 250 kHz, the spectrometer provides precise depth imaging up to 8 mm. The system supports USB 3.0 and CameraLink interfaces with 5 µm single-mode fiber input for research and OEM integration.



APPLICATIONS

- Eye OCT imaging
- Skin OCT imaging
- Biomedical OCT applications
- Metal welding OCT applications

KEY PERFORMANCE

Wavelength Range: 820 – 860 nm

Optical Resolution: 0.02 nm

Camera: e2V Octoplus CMOS OCT

Camera Speed: 20 / 80 / 130 / 250 kHz

Imaging Depth: 8 mm

Input Fiber: 5 µm single-mode (FC/PC or FC/APC)

Interface: USB 3.0, Camera Link

AlPha™ Specifications

	AL1020	AL1080	AL1130	AL1250
Wavelength Range	820 – 860 nm			
Optical Resolution	0.02 nm			
Sensor Type	CMOS			
Camera Speed	20 kHz	80 kHz	130 kHz	250 kHz
Imaging Depth	8 mm			
Camera Model	e2V Octoplus CMOS OCT Camera			
Camera Interface	USB 3.0	USB 3.0 / CameraLink		CameraLink
Input Fiber	5 µm single-mode fiber (FC/PC or FC/APC)			
Camera Package	Ceramic / Organic			
Operating Temperature	0°C to +50°C			
Dimensions / Weight	Dimensions without camera: 267 (L) × 135 (W) × 79.8 (H) mm Weight with camera: 2.3 kg			