

Featured Specs and Unique Features	Benefits
Technology	
Efficiency	
Operating system is Windows 7	
True optical Axial resolution of 5um; Digital resolution of 2um	Detailed images of tissue and pathology images
10x data compression of stored OCT data	large amount of data in small file size - reduced storage needs and increased data transfer rates
Zeiss optics and 7048 pixel OCT camera	superior, proven, quality for superior images
Telecentric optics	magnification does not change with focus adjustment, therefore improves reproducibility
Excellent repeatability in normal and patient eyes	signifies report repeatability standard deviation of 1.3 um in normal subjects and 1.2 um in patient eyes
Spatially extended low vision fixation target	Fixation target is visible to patient even with loss of central vision
High contrast live fundus image for alignment obtainable through a small pupil (32.5mm)	In most cases, no need to dilate
live iris viewing to facilitate alignment of scan with pupil	facilitates scan alignment, shortens chair time for patient
Ability to position scan and fixation target anywhere within the field of view	helpful for imaging peripheral pathology
Autofocus	automatically optimizes scan focus for patient with refractive error
Integrated design with acquisition head, CPU and monitor on board	The Cirrus OCT is a self contained unit. Dimension of the unit are 25.6 L, 17.3 W, 20.9 High, providing a small foot print that can fit in the corner of an office
90 degree orientation to provide technician access to patient throughout scanning,	The tech can assist patient during scanning with the 90 degree configuration
Internal Lenses for Ant Seg. imaging	No add-on lens is required for anterior segment imaging. Operator can switch from posterior to anterior segment imaging efficiently and easily.
Automated motorized patient alignment	With repeat scan, chin and forehead position and scan and fixation location are automatically repeated from prior visit, avoiding discomfort for the patient, and saving time and energy
Ability to scan cube of 128 B-scans by 512 A-scans in 2.4 seconds	captures over 67,000,00 data points in 2.4 seconds for excellent registration and efficient workflow
Ability to scan cube of 200 A-Scans by 200 B-Scans in 1.5 Seconds	Ensures that the OCT is capturing over 40,000,000 data points in 1.5 seconds for excellent registration and efficient workflow.
Ability to scan at 68,000 A-scans a second	Will Provide exceptional detail in of retinal layers and choroid in future scans
Fast Trac (Trade-Mark)	Retinal Tracking system reduces eye motion artifacts without sacrificing patient throughput with a proprietary scan acquisition strategy high speed 20Hz LSO camera and simple pass alignment scanning. Ultimately allowing for precise registration from previous scan to current scan while tracking the patient's eye
Analysis	
Scan Density	Cirrus OCT Scan Density: 1024 data points per A-scan; 512 A-scans per B-scan; 128 B-scans per cube = >87million total data points in scan volume captured in 2.4 seconds
Scan Volume	Or 1024 data points per A-scan; 200 A-scans per B-scan; 200 B-scans per cube = >40million total data points in scan volume captured in 1.5 seconds
Layer Segmentation (isolated Segmentation map of just the ILM)	512x128 cube scan has just 47 micron spacing between scans. The 200x200 cube scan has just 30 microns between scans. Small lesions and anomalies will not be missed.
Layer Segmentation (isolated Segmentation maps of the RPE)	automatic segmentation delineates layers of the retina for visualization of pathology, for example, Epi-Retinal Membrane structure can be seen underlying the segmented ILM Map
Retina	automatic segmentation delineates layers of the retina for visualization of pathology, for example, drusen structure can be seen underlying the segmented RPE map
Automatic Fovea Finder for precise alignment of retinal analysis Post Analysis	Ensures analysis is centered on the fovea. This is done automatically post scan acquisition.
Advanced visualization Slab images for portion of tissue	Ability to view en face slab views at depths through the retinal tissue. Reveals location and details of pathology
Sub-RPE illumination: If the RPE is absent or has lost integrity, the OCT beam penetrates into the choroid. A new proprietary algorithm for Cirrus can determine when this occurs and then maps and measures the affected area	Provides Serial Analysis of area in 5mm circle and provides an automatic measurement of the closest point of illumination to the fovea in Microns. And a measurement in percentage of change from previous scan to current scan
RPE Elevations: If the RPE is raised above a baseline plane, a new proprietary algorithm for Cirrus maps and measures the area and volume of the elevations	Provides a Serial Analysis of any RPE Elevation in an area of 5mm area and a 5mm area. Has precise registration from Previous Scan. Measurements are provided in MM Squared for the affected area and MM Cubed for the volume of 3 mm and 5mm circles, and percentage of change in each area from previous scan for a serial analysis
Ability to change the circle EDTRS Grid of Retina Measurements Post Scan	Ability to override automated result in the case that clinician disagrees with circle placement
glaucoma	
ONH and RNFL analyses based on same 6mm x 6mm cube volume (40 million data points)	Only one scan is necessary for both ONH and RNFL assessment over 40 million different Data Points
De-ration Mapping that demonstrates loss over the whole area of RNFL. Loss over 600mm map Centered around the Optic Disc	
Automatic centration on optic disc for RNFL analysis including peripapillary calculation circle, and RNFL thickness map	Cirrus OCT automatically centers the Circle around the optic nerve head. Ensuring that the measurements of the RNFL are positioned correctly to compare against the age related normative database
Ability to manually place the calculation circle around the optic disc after acquisition	Ability to override automated result in the case that clinician disagrees with circle placement
Normative database for comparison of Optic Nerve Head measurements, matched and compared to age related and optic disc size normative database	The ability to compare a patient to a normative database, can provide information to see if a patient is outside of normal limits.