



Specular Microscope
CEM-530



THE ART OF EYE CARE

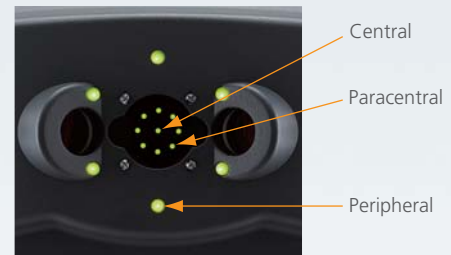
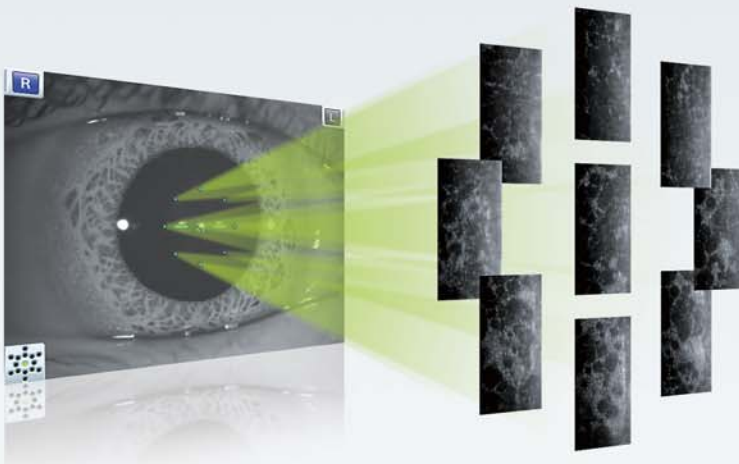


CEM-530

SPECULAR MICROSCOPE

Paracentral Specular Microscopy

In addition to conventional central and peripheral specular microscopy, the CEM-530 includes a unique function to capture paracentral images. The paracentral images are captured at eight points, 5° visual angle within a 0.25 mm x 0.55 mm field and enable enhanced assessment surrounding the central image.

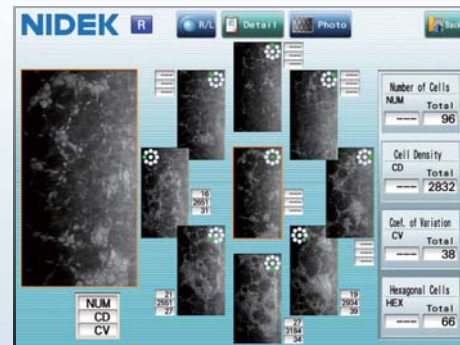


Simulated image of 15 fixation lights*
Central 1 point
Paracentral 8 points (5° visual angle)
Peripheral 6 points (27° visual angle)
*Only one selected fixation light is on.

Paracentral mode provides a total image of endothelial cells.

The paracentral mode allows detailed evaluation of cell shape, which is important for preoperative assessment. For example, assessment of corneal guttata using a central image only is often clinically ineffective due to the limited number of countable cells.

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Paracentral Image

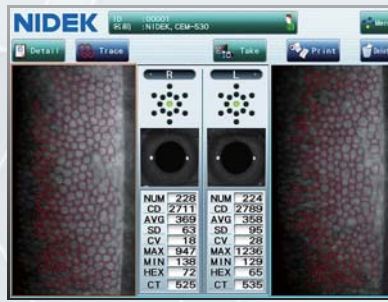
Faster Measurements and Two-Second Auto Analysis

The CEM-530 with new advanced software and enhanced image capture system allows rapid image acquisition. A new algorithm for the automated analysis software performs complete analysis in two seconds.

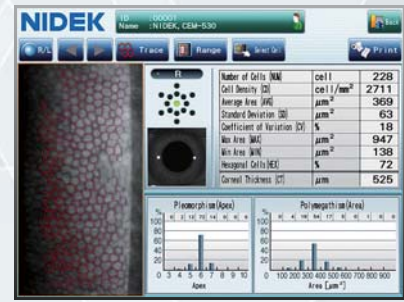


Comprehensive Analysis

The analysis results with graphic and color-coded cell images helps the clinician to rapidly and effectively evaluate the endothelial cell layer.



Analysis result



Detail analysis

Advanced Manual Analysis Functions

Two new methods, center point and corner point, have been added to the manual analysis function. These additions provide the clinician with three manual analysis functions.

Center point

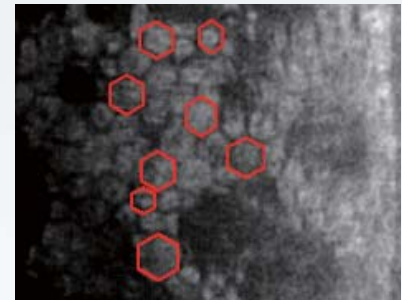
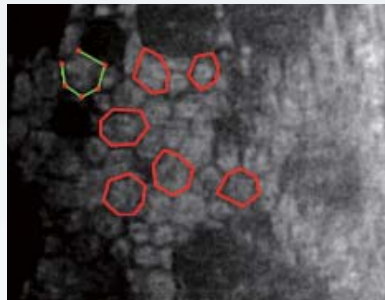
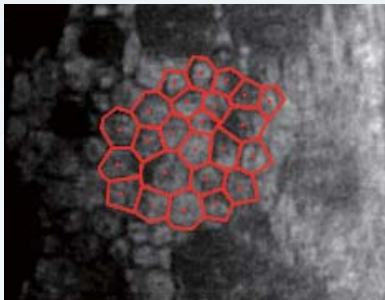
Select the approximate center of a cell. The cells are detected based on the surrounding points. This method is effective for areas where groups of cells are clumped together.

Corner point

Trace the outlines of the cells to be analyzed by selecting the corners of each cell. This method is suitable for detailed identification of the size and dimension of isolated cells.

Pattern select

Select a hexagonal reference pattern that is similar to the cell size and drag it onto the cell to be analyzed. This method is effective for rough identification of the size and dimension of the cells.



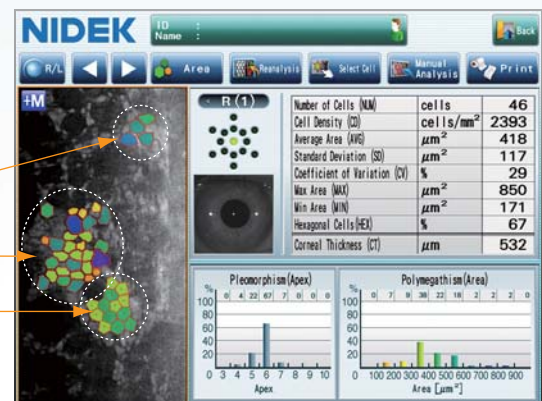
Combination of Auto and Manual Analyses

All three manual analysis methods can be performed on the same image and also on auto-analyzed images. The versatility of combining automated and manual analyses allows analysis of the range of pathology in a comprehensive practice.

Corner point

Auto analysis

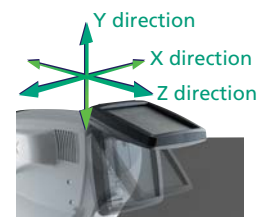
Center point



Easy Operation

3-D Auto Tracking, Auto Shot, and Tilttable Touch Screen

The 3-D auto tracking, auto shot, and tilttable touch screen provide ease of use, allowing faster and more accurate measurement.



Instant Printout with Built-in Printer

The built-in printer provides an instant printout of the analyzed data and images of the endothelial cells.



CEM-530 Specifications

Endothelial image capture	
Capture field	0.25 (W) x 0.55 (H) mm
Capture position	Central 1 point Paracentral 8 points (5° visual angle, 45° spacing) Peripheral 6 points (27° visual angle, 60° spacing)
Pachymetry	
Measurement range	300 to 1,000 µm
Accuracy	±10 µm
Auto tracking / Auto shot	X-Y-Z directions Auto shot
Display	Tilttable 8.4-inch color LCD touch screen
Printer	Built-in thermal line printer External video printer (optional)
Interface	LAN, USB, Video output (BNC connector for video printer)
Power supply	AC 100 to 240 V 50 / 60 Hz
Power consumption	100 VA
Dimensions / Mass	291 (W) x 495 (D) x 457 (H) mm / 20 kg 11.5 (W) x 19.5 (D) x 18.0 (H) " / 44 lbs.



Product / Model name: Specular Microscope CEM-530

Specifications may vary depending on circumstances in each country.

Specifications and design are subject to change without notice.



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