



Specular Microscope  
**CEM-530**

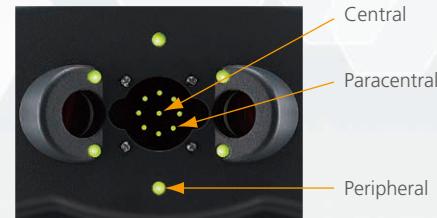
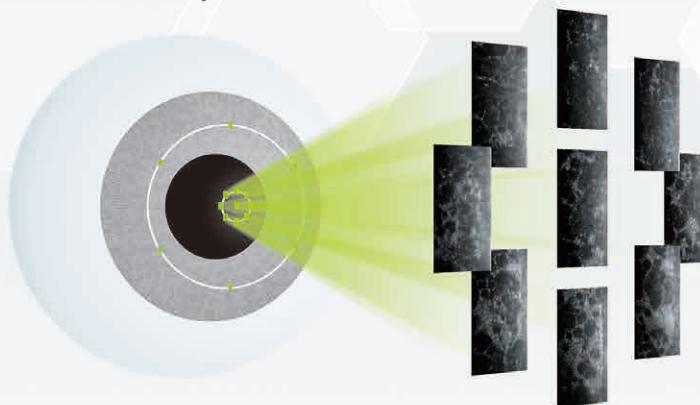


THE ART OF EYE CARE



## Multi Area Specular Microscopy

In addition to conventional central and peripheral specular microscopy, the CEM-530 includes a NIDEK original function that captures paracentral images. The combination of central, paracentral, and peripheral imaging provides a broader, overall view that can be used for detailed morphological and quantitative evaluation of the endothelial layer and individual cells.



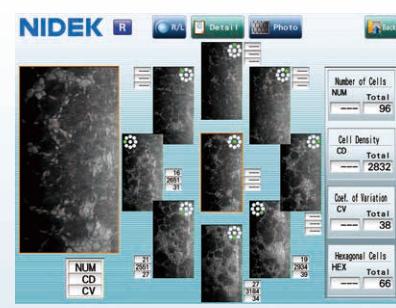
The position of fixation lights  
Central 1 point  
Paracentral 8 points ( $\varnothing 1.3 \text{ mm}^*$ )  
Peripheral 6 points ( $\varnothing 7.3 \text{ mm}^*$ )  
\*When R = 7.8 mm

### 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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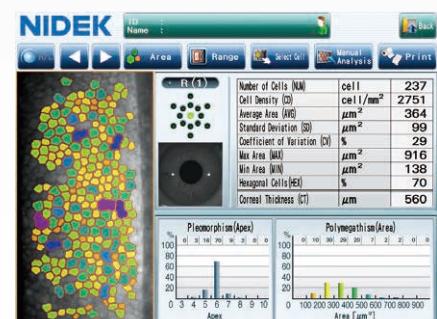
Paracentral image



## Enhanced Usability and Quick Analysis

The 3D auto tracking and auto shot functions result in a user friendly and patient friendly experience.

Data analysis within 2 seconds allows efficient patient flow.



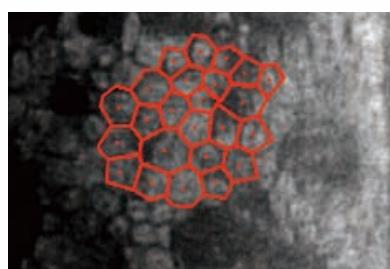
Detail analysis



## Advanced Manual Analysis Functions

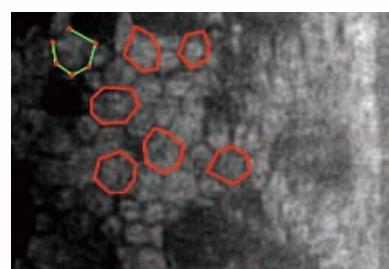
### Center point

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.



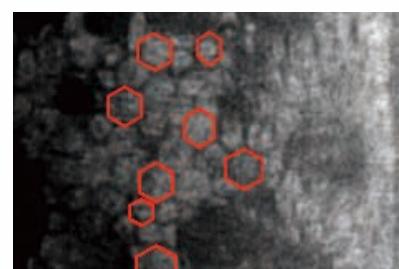
### Corner point

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

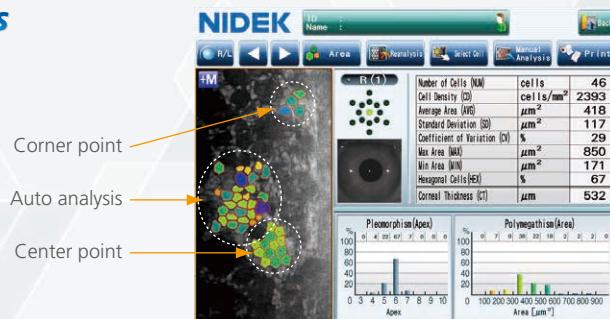
Select a hexagonal reference pattern that is similar to the cell size and drag it onto the cell to be analyzed. This method is effective for rough identification of the size and dimension of the cells.





## Combination of Auto and Manual Analyses

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



## CEM Viewer for NAVIS-EX

CEM Viewer is software used for viewing and working with CEM-530 data via NAVIS-EX. This function enhances the capability of the CEM-530 with additional features and increases the efficiency of any clinic.

### Data Management and Endothelial Cell Count

Unlimited NAVIS-EX database is available for review on the CEM Viewer. The basic functions of the CEM-530 such as endothelial cell count are available on the CEM Viewer.



NAVIS-EX is image filing software that enables data from the NIDEK diagnostic devices to be centralized in the NAVIS-EX database. It was initially developed for NIDEK's retinal products and has been expanded to network with the CEM-530.

\*NAVIS-EX is required for use of the CEM Viewer.



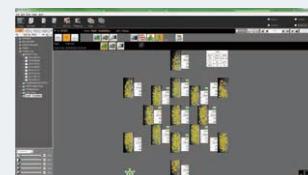
### Progression Follow-up and Comparison

Multiple examination data sets are displayed in chronological order for follow-up. Additionally, two data sets are displayed for comparison. Endothelial changes can be monitored over time with this function.



### Paracentral Display with Peripheral

The images and analyses of the paracentral and peripheral areas are displayed providing a comprehensive image of endothelial cells.



Product/Model name: Image Filing Software NAVIS-EX



**More clinical information available online at the NIDEK Education page**

For more clinical information, please visit the Education page on the NIDEK website. This site allows access to case reports, journal articles, and video presentations.



<https://www.nidek-intl.com/education/>

## CEM-530 Specifications

Endothelial image capture	
Capture field	0.25 (W) x 0.55 (H) mm
Capture position	Central 1 point Paracentral 8 points ( $\phi$ 1.3 mm*) Peripheral 6 points ( $\phi$ 7.3 mm*)
Pachymetry	
Measurement range	300 to 1,000 $\mu$ m
Accuracy	$\pm$ 10 $\mu$ m
Auto tracking	X-Y-Z directions
Auto shot	Available
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	100 to 240 V AC 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.

\*When R = 7.8 mm

### CEM Viewer for NAVIS-EX\*1

Progression follow-up and comparison	Available
Paracentral display with peripheral	Available
System requirements	
Operating system	English version: Windows 10 Pro (32 bit / 64 bit) Windows 11 Pro Windows Server 2016 Standard*2 Windows Server 2019 Standard*2 Windows Server 2022 Standard*2
Display	SXGA (1,280 x 1,024 pixels) or higher UXGA or full HD is recommended to display CEM Viewer.

\*1 NAVIS-EX is required for use of the CEM Viewer.

\*2 For installation only.



Product/model name: SPECULAR MICROSCOPE CEM-530

Brochure and listed features of the device are intended for non-US practitioners.

The availability of products differs from country to country depending on the status of approval.

Specifications may vary depending on circumstances in each country.

Specifications and design are subject to change without notice.

