AFC-230 / 210 Specifications

Model	AFC-230	AFC-210
Type	Non-mydriatic auto fundus camera	←
Picture angle	45° (in smaller pupil diameter mode: 37°)	←
Working distance	45.7 mm (from camera lens to cornea)	←
Minimum pupil diameter	ø4.0 mm (in smaller pupil diameter mode: ø3.7 mm)	←
Display	5.7-inch TFT color LCD	←
Dioptric compensation for patient's eyes	-33 to +35 D total -33 to -7 D with minus dioptric lens -12 to +15 D with no dioptric lens +11 to +35 D with plus dioptric lens	←
Focusing method	Infrared split bright target coincidence (Auto / Manual, in -12 to +15 D range)	←
Light source For observation For photography	 Halogen lamp 12V 50W with infrared filter Xenon flash lamp (max. 300 Ws)	←
Illumination adjustment	17 levels : F1 (F4.0 + 0.7 EV) to F17 (F22 + 0.5 EV) 0.5 EV increments	←
Internal fixation target	LED (70 points)	←
External fixation target	Free-arm (optional)	←
Horizontal movement	40 mm (back and forth) 85 mm (left and right)	←
Vertical movement	32 mm	←
Chinrest movement	62 mm (up and down, motorized)	←
Auto tracking / Auto shot	X-Y-Z direction Auto shot	Y direction Auto shot
Interface	USB 2.0	←
External camera	High resolution digital SLR camera	←
Power supply	AC 100-240 V ±10% 50 / 60 Hz	←
Power consumption	Normal 150 VA, Max. 300 VA	←
Dimensions / Weight	280 (W) x 505 (D) x 507 (H) mm / 25 kg 11.0 (W) x 19.9 (D) x 20.0 (H) " / 55 lbs.	←
Standard accessories	Power cord (x1), USB cable for fundus camera (x1), USB cable for digital camera (x1), Cable sleeve (x1), Tie wrap (x2), Dust cover (x1), Chin rest paper (x1), Pin for chin rest paper (x2), Objective lens cap (x1), Camera mount cap (x1), Operator's manual (x1), Short operator's manual (x1), Digital camera installation manual (x1), Blower brush (x1), External fixation target (x1 for US)	←
Optional accessories	NAVIS-Lite, External fixation target, Stereo viewer, Conventional frame size camera adapter (Factory option)	←

Caution : U.S. Federal Law restricts this device to sale, distribution and use by or on the order of a physician or other licensed eye care practitioner.

*Specifications and design are subject to change without notice for improvement.

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NIDEK

Non-Mydriatic Auto Fundus Camera

AFC-230 / 210

The Art of Eye Care

Features of AFC-230 / 210

Accurate Anterior Eye Observation before Photography

The AFC-230 / 210 integrates the 5.7-inch TFT LCD (640 x 480) monitor in addition to the special optic system, CCD camera and high resolution monitor for anterior eye observation, allowing accurate confirmation of the anterior eye status (blepharoptosis, in-growing eyelashes, nystagmus, cataract, corneal disorder, etc). This assures high quality retinal photography.

Flexible Field Angle

Without an adapter, the AFC-230 / 210 can provide detailed image of smaller field of view in high quality by utilizing full frame 35mm in 45° field of view.

Unique Blink Control

With the automatic blink detection, the AFC-230 / 210 automatically stops the photography when the patient blinks.

Anterior Eye Photography Mode

When the button for anterior eye photography is pressed, the AFC-230 / 210 automatically switches its mode and provides clear anterior eye photography.

Smaller Pupil Photography Mode

In addition to the regular minimum Pupil Diameter ø4.0 mm, the AFC-230 / 210 is also highly capable of detecting a smaller Pupil Diameter - Minimum 3.7 mm. When the patient's Pupil Diameter is detected to be smaller than the required 4.0 mm, the AFC-230 / 210 automatically switches its mode to the smaller pupil diameter mode.

Stereo Photography Mode*

Stereo fundus photography is also possible.

*Requires stereo viewer (optional).

High-Speed Image Transfer to a PC

Connection to a PC through USB 2.0 allows quick and easy transfer of the images. The data can also be saved in an outside electronic chart system through the NAVIS-Lite.

Ergonomic Design for Easy Operation in Darkened Room

Layout of the buttons, lever and dial is ergonomically designed to allow intuitive operation. These allow the operator to take a photograph easily even in a dark room.

Compact Body

All necessary functions are integrated into this compact body, offering greater portability.

Auto Fundus Camera
AFC-230 / 210

Next Generation Non-Mydriatic Auto Fundus Camera offering High Quality Image and Advanced Operation

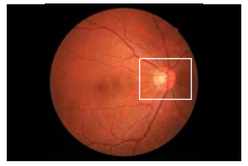
NIDEK delivers the innovative non-mydriatic digital fundus camera that integrates every function required for easy retinal screening. Customized built-in functions of the AFC-230 / 210 improve the quality and efficiency of medical examinations.

High Quality Retinal Imaging

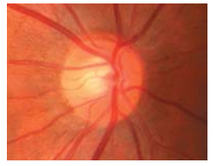
Integrating the innovative imaging optical system, this technologically advanced AFC-230 / 210 realizes digital fundus imaging of high resolution and fine gradation. The fine gradation provides clear and detailed display of the entire fundus image from the light optic disc to a darkened disease area. With noise greatly reduced, the system offers retinal photography with minimum flash exposure allowing quick and efficient fundus photography of both eyes, thereby minimizing patient discomfort.

With advanced optical system with large sensor, the AFC-230 / 210 offers high quality image at true 45° field of view.

* Conventional frame size camera is also attachable by utilizing adapter (factory option) with true 45° field of view.



Full frame size
(36mm×24mm)



Optic disc(closeup)

First in the world full automatic Non-Mydriatic Camera

The AFC-230/210 is the first in the world full automatic Non-Mydriatic Camera with advanced auto-tracking, auto-focus and Auto Shot technology. Auto-tracking technology allows easy and accurate alignment to the anterior corneal center. Also, the auto focus system provides automatic switching from anterior to retina, realizing high performance focusing. Once you have retina in focus, Auto Shot function offers high quality imaging without manually shooting the retina.

Stress Free Photography Management

The AFC-230 / 210's advanced technologies reduce every day problems.

High resolution Image Photography
Always in focus
Minimum retakes
Patient friendly
User Friendly

High-Performance Retinal Image Filing System - NAVIS-Lite

The AFC-230 / 210 system incorporates the sophisticated and user-friendly data filing software - NAVIS-Lite - allowing easy patient data management.

Key Features of NAVIS-Lite

- Images that are automatically imported from the AFC-230 / 210 are sorted by patient name.
- Easy-care pathway protocols in place for displaying patient information.
- Sophisticated imaging functions are incorporated, including Image Processing, Drawing, Measurement, and Panoramic Imaging for large field analysis.

Zoom : Images can be zoomed freely
Effects : Sharp, Combination, Edge enhancement
Color control : Gray scale, Contrast RGB, Red-free, Channel split, Inverting Color, Brightness, Contrast, Histogram, Gamma control, Intensity selection
Rotate / Reverse : Image can be rotated / reversed at any angle
Measurement : C / D ratio, Disc HV, Cup HV, Two point distance, Selected area
Drawing : Text / objects can be inserted into the image

- Flexible print layout display for patient reports
- Data back-up function
- Easy Image export
- E-mail function allowing to send message text with images files
- The data can be transferred to a DICOM (Digital Imaging and Communications in Medicine) 3.0 compatible server (optional).

Sample Screens

Patient List

Patient Data

Image Editing

Full-Screen Display

Various System Configurations

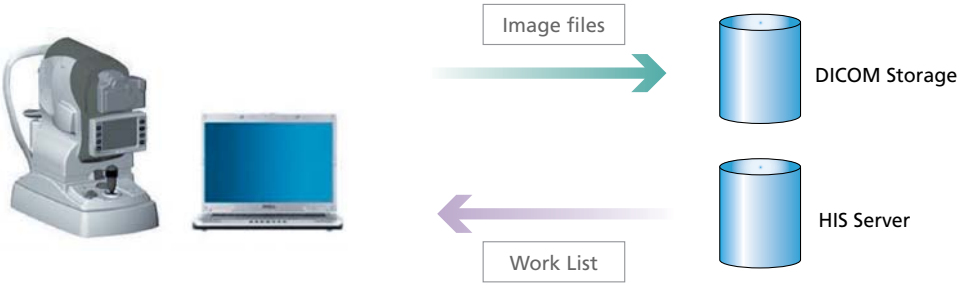
1 | Stand-Alone or Review-Station capability

Easy connection with a Laptop or PC using USB2.0 interface.
Quick and easy software installation to a laptop or PC using NAVIS-Lite installer.
NAVIS-Lite software is available in stand-alone or review-station capable edition.
OS requirement: Windows XP or later

2 | Communication with Existing Modules

Image files and XML files can be automatically / manually exported to a designated folder. XML files include information that links the patient data and image files, allowing data export to the NAVIS and other existing software modules.

3 | DICOM Connection (Optional)



DICOM connection can be achieved. Downloading work lists from the HIS Server is also possible.