





# THE ART OF EYE CARE

## MP-3 Microperimeter

## The Automatic Microperimeter With A Non-mydriatic Fundus Camera

## Functionality



NIDEK

MP-3 Normal Eye Image (34 dB)



MP-3 Glaucomatous Eye Image (34 dB)

## Morphology

## High Resolution Non-mydriatic Fundus Camera

The 12-megapixel fundus camera in the MP-3 acquires high resolution images of retinal pathology and allows easy image acquisition.



Fundus Camera Image

#### Wide Measurement Range

The MP-3 has a wider range of stimulus intensity, from 0 to 34 dB, compared to the MP-1. The MP-3 measures perimetric threshold values, even for normal eyes. A maximum stimulus luminance of 10,000 asb\* allows evaluation of low-sensitivity. \*In accordance with ISO12866 measurement methods



#### Evaluation of Treatment



Image of Area Specified Fixation Result



### **Region-specific Test Evaluation**

After completion of measurements, results can be evaluated in a specific region of interest to allow easier comparison with other pathology images. By specifying the region of interest, the average results in the region are displayed.



Magnified Image of Specified Fixation Point

#### Follow-up Test

A follow-up test can be performed on the same area using the same parameters as a previous test. This feature allows evaluation of disease progression or assessment of pre- and post-treatment outcomes. Any differences in two microperimetry images are displayed for quick, intuitive interpretation.

#### **Fixation Assessment**

The MP-3 indicates the percentage of fixation points within 2° and 4° in diameter help confirm fixation stability.



Magnified Image of the Fixation Stability

## User-friendly Functions

#### Selection of Test Mode

Several measurement modes are available for evaluating a variety of pathology including:

- Microperimetry: Microperimetry test (visual sensitivity mapping) Microperimetry test practice
- Retinography: Fundus photography
- Fixation: Fixation test



Start Image



## NAVIS-EX

NAVIS-EX is an image filing software that networks the MP-3 and other NIDEK fundus imaging devices.



NAVIS-EX Viewer and MP Viewer

#### **Print Setup**

Various printed reports are available including user specified layouts when used with NAVIS-EX.



Print Image

## MP-3 Images of Pre- and Post-treatment Comparison

Case of anti-VEGF treatment for age-related macular degeneration (AMD)



Pre-treatment



Post-treatment

Circle at 2° Percentage of fixation points 68.1% Circle at 4° Percentage of fixation points 95.5% Mean sensitivity: 20.9

## Cases of the Macular Disease



**Epiretinal Membrane** 



Polypoidal Choroidal Vasculopathy



Central Serous Chorioretinopathy



Age-related Macula Degeneration (Geographic Atrophy)



**Retinal Angiomatous Proliferation** 



Excessive Myopia

There have been significant advances in the assessment of retinal morphology due to the introduction of optical coherence tomography (OCT) into clinical practice, however, functional evaluation of retinal pathology is further advanced with the use of the microperimetry. The MP-3 measures local retinal sensitivity for functional assessment of the retina. The results can be displayed over a color fundus image, correlating retinal anatomy to retinal function.



Automatic Registration (color fundus and microperimetry)

## **Fixation Test**

The MP-3 can measure fixation and determine the preferred retinal locus, simply by having the patient fixate on a target. Any change in fixation can be compared pre- and post-treatment because the patient's eye is constantly tracked during microperimetry. This test allows evaluation of fixation in patients with central visual field defects and determines whether fixation improved after treatment.







**Fixation Test Image** 

## **MP-3 Specifications**

Microperimetry	
Visual field	40°
Maximum stimulus luminance	10,000 asb (in accordance with ISO12866 measurement methods)
Background luminance	31.4 asb / 4 asb (in accordance with ISO12866 measurement methods)
Stimulus size	Goldman I/II/III/IV/V compatible
Threshold strategy	4-2 / 4-2-1
Fixation target	Shape: single-cross, circle, four-crosses
	Color: select from white/yellow/red/blue
Fundus Camera	
Туре	Non-mydriatic fundus camera, color
Angle of view	45° $\pm$ 5% (The refraction of the eye is 0 D)
Minimum pupil diameter	ø4 mm
Camera	Built-in 12-megapixel CCD camera
Auto tracking	X-Y-Z directions
Auto shot	Available
Working distance	45.7 mm
Display	10.4-inch color LCD touch screen
Diopter correction range	-25 to +15 D
Fundus auto focus range	-12 to +15 D
Power supply	AC 100 to 240 V
	50/60 Hz
Power consumption	160 VA
Dimensions / Mass	334 (W) x 562 (D) x 560 (H) mm / 36 kg
	13.1 (W) x 22.1 (D) x 22.0 (H) " / 79 lbs.
Optional accessories	Motorized optical table



Product/Model name: Microperimeter MP-3

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 may vary depending on circumstances in each country. Specifications and design are subject to change without notice.



#### NIDEK INC.

46601 Cascades Court, Suite 130 The Colony, TX 75056, U.S.A. TEL: 1-800-223-9044 (U.S. Only) URL: usa.nidek.com HEAD OFFICE (International Div.) 34-14 Maehama, Hiroishi Gamagori, Aichi 443-0038, JAPAN TEL: +81-533-67-8895 URL: http://www.nidek.com [Manufacturer]