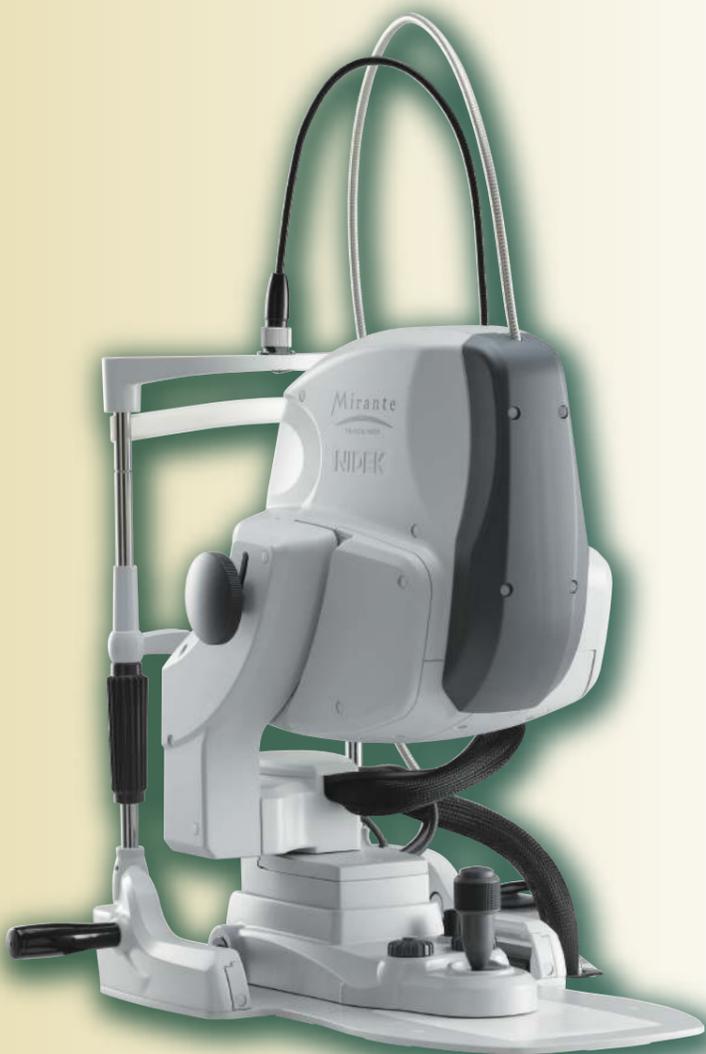


Mirante SLO/OCT



Nidek Co., Ltd.

Product features and applications



The Mirante captures high-quality, high-definition fundus images with the combination of two image capture methods: “Scanning Laser Ophthalmoscopy (SLO)” that capture fundus images using weak laser beam, and “Optical Coherence Tomography (OCT)” that captures cross-sectional images of the retina using a “Super Luminescent Diode (SLD)”.

For the SLO image capture using the Mirante, the alignment to the fundus is performed using a near-infrared laser (790 nm) that causes minimal glare to the patient’s eye. For the image capture, blue, green, and red laser beams (488 nm, 532 nm, 670 nm) scan simultaneously, and the light reflected from the fundus is received with three Avalanche Photo Diodes (APDs) to form a color SLO image of 16.7 million pixels (4096 x 4096 pixels). In addition, by attaching an optional wide-angle adapter, a wide-range fundus image can be captured with an internal ocular angle of $\Phi 163^\circ$. In addition, with an injection of a contrast medium into the blood vessels, a fluorescence contrast examination can be performed using blue and near-infrared laser beams.

Traditional fundus examination uses fundus cameras equipped with a xenon flash and a digital camera such as a single-lens reflex camera. In addition to that, the Mirante uses a confocal scanning method to identify diseased portions based on the difference in depth each laser beam reached in the retinal tissue. An additional advantage of the confocal method is that it is less susceptible to the influence of optic media such as cataracts, improving the success rate of image capture. In addition, the widened angle of view contributes to the diagnosis of various eye diseases, such as capturing minute lesions of peripheral retinal detachment.

Mirante

