

# SIGNAL

## Handheld Retinal Camera

The SIGNAL handheld retinal camera is a versatile and mobile imaging solution to bring to different exam rooms or home settings. Capturing images with the SIGNAL is simple and the compact design is ideal for mobile eye care or satellite offices to screen for retinal conditions, such as diabetic retinopathy.



### Easy Image Capture

The SIGNAL enables non-mydriatic retinal examination with a 50° x 40° field of view, covering the macula and the disc.



True color images and videos (mydriatic) offer excellent screening and documentation of the retina



Nine fixation targets offer both central as well as peripheral imaging



Auto-focus and auto-exposure functions make image acquisition with the SIGNAL straightforward and fast



Quickly evaluate brightness, reflection, shadowing, and sharpness of the captured images with the image quality analysis tool

### Flexibility

The SIGNAL is ultra-lightweight and compact and has an operating time of up to 5 hours of continuous use.



Easily add the camera to a slit lamp with the optional slit lamp mount for increased alignment and positioning stability



Images can be transferred via WLAN or USB connectivity



## SIGNAL SPECIFICATIONS

<b>Model</b>	SIGNAL Camera
<b>Illumination</b>	<ul style="list-style-type: none"> <li>• Preview (focusing): Infrared LED</li> <li>• Capture: visible white LED (10 brightness levels)</li> <li>• 9 internal red LEDs for fixation targeting</li> </ul>
<b>Maximum luminance</b>	3.0 cd/cm <sup>2</sup>
<b>Field of view</b>	50x40°
<b>Diopter compensation</b>	from -20 D to +20 D
<b>Minimum pupil size</b>	Ø 3.1 [mm]
<b>Image resolution</b>	2368 x 1776 pix (total 4.2 Mpix, effective area 3.38 Mpix)
	White and Infrared LED when operated in continuous mode
<b>Spectral output at working distance</b>	
<b>Image sensor</b>	CMOS, 5.0 Megapixels
<b>Image memory type</b>	Internal 8 GB memory
<b>Display</b>	4", TFT-LCD, 800x480 pixels, 16.7 M colors
<b>Image format</b>	JPEG (file extension: .jpg)
<b>Video format</b>	MPEG-4 (640 x 480 )
<b>USB Connectivity</b>	USB 1.1, compatible with USB 2.0 and 3.0
<b>WLAN Connectivity</b>	<ul style="list-style-type: none"> <li>• 802.11 bgn, wpa2</li> <li>• Operating frequency range: 2412 - 2472MHz (Channels 1-13)</li> <li>• Modulation: OFDM (802.11 a/g/n), DSSS/CCK (802.11b)</li> <li>• Maximum output power: 17.25 dBm</li> <li>• Maximum antenna gain: 1.9 dBi</li> </ul>
<b>Operating systems</b>	<ul style="list-style-type: none"> <li>• Microsoft Windows 8.1®, Windows 10® (WLAN and USB)</li> <li>• MacOS (three latest versions) (USB)<sup>1</sup></li> </ul>
<b>DICOM conformance</b>	DICOM compatible <sup>2</sup>
<b>Dimensions</b>	127 (w) x 202 (h) x 240 (d) mm
<b>Weight</b>	785 g
<b>Batteries</b>	<ul style="list-style-type: none"> <li>• 50001508, 3.65V, 2750 mAh</li> <li>• Rechargeable Li-Ion battery</li> <li>• Li-Ion cell with integrated safety circuit</li> </ul>

1. No driver installation needed.

2. DICOM Conformance Statement available upon request.