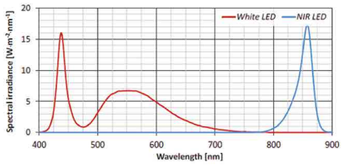
SIGNAL SPECIFICATION

FEATURE	SPECIFICATION
Illumination	Infra-Red LED for aiming. Visible white LED for imaging, 10 illumination brightness levels. 9 Red LEDs for internal fixation targeting
Maximum luminance	3.0 cd/cm2
Field of view	50x40°
Minimum pupil diameter	Ø 3.1 mm
Diopter compensation	From -20 D to +20 D
Image resolution	2368 x 1776 pix (total 4.2 Mpix, effective area 3.38 Mpix)
Spectral output at working distance	White and Infra-Red LED when operated in continuous mode 
Image sensor	CMOS, 5.0 megapixels
Image memory type	Internal 8 GB memory
Display	4'', TFT-LCD, 800x480 pixels, 16.7 M colors
Image format	JPEG (file extension: jpg)
Video format	MPEG-4 (640 x 480)
USB Connectivity	USB 1.1, compatible with USB 2.0 and 3.0
WLAN Connectivity	• 802.11 bgn, wpa2 • Operating frequency range: 2412 –2472MHz (Channels 1-13) • Modulation: OFDM (802.11 a/g/n), DSSS/CCK (802.11b) • Maximum output power: 17.25 dBm • Maximum antenna gain: 1.9 dBi
Operating systems	• Windows 8.1®, Windows 10® (WLAN and USB) • macOS (three latest versions) (USB). No driver installation needed.
Dimensions	27 mm (w) x 202 mm (h) x 240 mm (d)
Weight	785 g
Battery	• 50001508, 3.65V, 2750 mAh • Rechargeable Li-Ion battery • Li-Ion cell with integrated safety circuit.

IMPORTANT Subject to change in design and/or specifications without advanced notice. In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation. Medical device MDD Class IIa. Manufacturer: Optomed Oyj

CE 0598

Item code: 42-0000348 / Distributed in Europe 06.20

TOPCON EUROPE MEDICAL B.V.
Essebaan 11, 2908 LJ Capelle a/d IJssel
P.O. Box 145, 2900 AC Capelle a/d IJssel
THE NETHERLANDS
Phone: +31 -(0)10-4585077
Fax: +31 -(0)10-4585045
E-mail: medical@topcon.com
www.topcon-medical.eu

TOPCON DANMARK
Praestemarksvej 25, 4000 Roskilde
DANMARK
Phone: +45-46-327500
Fax: +45-46-327555
E-mail: info@topcon.dk
www.topcon-medical.dk

TOPCON SCANDINAVIA A.B.
Neongatan 2, P.O.Box 25, 43151 Mölndal
SWEDEN
Phone: +46-(0)31-7109200
Fax: +46-(0)31-7109249
E-mail: medical@topcon.se
www.topcon-medical.se

TOPCON ESPAÑA S.A.
HEAD OFFICE
Frederic Mompou, 4, 08960 Sant Just
Desvern Barcelona, SPAIN
Phone: +34-93-4734057
Fax: +34-93-4733932
E-mail: medica@topcon.es
www.topcon-medical.es

TOPCON ITALY
Viale dell' Industria 60,
20037 Paderno Dugnano, (MI) ITALY
Phone: +39-02-9186671
Fax: +39-02-91081091
E-mail: info@topcon.it
www.topcon-medical.it

TOPCON FRANCE MEDICAL S.A.S.
1 rue des Vergers, Parc Swen,
Bâtiment 2, 69760 Limonest, FRANCE
Phone: +33-(0)4-37 58 19 40,
Fax: +33-(0)4-72 23 86 60
E-mail:topconfrance@topcon.com
www.topcon-medical.fr

TOPCON DEUTSCHLAND G.M.B.H.
Hanns-Martin-Schleyer Strasse 41,
D-47877 Willich, GERMANY
Phone: (+49)2154-885-0
Fax: (+49)2154-885-177
E-mail: info@topcon-medical.de
www.topcon-medical.de

TOPCON POLSKA SP. Z. O. O.
ul. Warszawska 23, 42-470 Siewierz
POLAND
Phone: +48-(0)32-670-50-45
Fax: +48-(0)32-671-34-05
E-mail: info@topcon-polska.pl
www.topcon-medical.pl

TOPCON (GREAT BRITAIN) MEDICAL LIMITED
Topcon House, Kennet Side, Bone Lane,
Newbury, Berkshire RG14 5PX
UNITED KINGDOM
Phone: +44-(0)1635-551120
Fax: +44-(0)1635-551170
E-mail: medical@topcon.co.uk
www.topcon-medical.co.uk

TOPCON IRELAND MEDICAL
Unit 292, Block G, Blanchardstown,
Corporate Park 2 Ballycoolin
Dublin 15, D15 DX58, IRELAND
Phone: +353-12233280
E-mail: medical.ie@topcon.com
www.topcon-medical.ie

OPTOMED OYJ
Yrttipellontie 1, 90230 Oulu
FINLAND

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TOPCON Healthcare
SEEING EYE HEALTH DIFFERENTLY

Signal

Hand-held retinal camera

TOPCON Healthcare
SEEING EYE HEALTH DIFFERENTLY

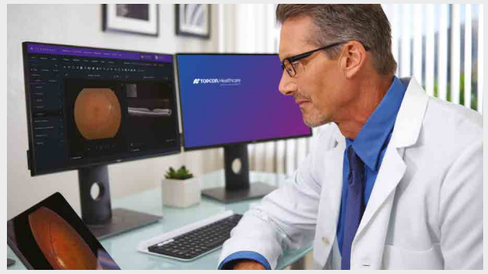
A mobile imaging solution.

The Signal hand-held retinal camera, is a versatile addition to the Topcon Imaging line. The Signal is a mobile imaging solution for use in different exam rooms or home settings. The Signal hand-held retinal camera offers true color fundus images for detailed retinal examination.

Signal has an operating time of approximately 2.5 hours of continuous use.

Carry Case

The Signal hand-held fundus camera comes in a light-weight carry case.
The case is made of endurable materials and offers good protection to the camera and it's accessories.

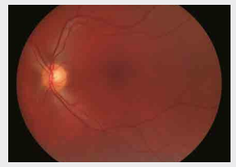


Imaging

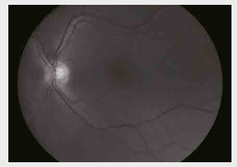
The Signal enables non-mydriatic retinal examination with a 50° x 40° field of view, covering the macula and the disc. It is not necessary to dilate pupils.
True color images and videos offer excellent screening and documentation of the retina.
The nine fixation targets offer both central and peripheral imaging.

Imaging Modalities

The Signal hand-held retinal camera has several imaging modalities such as true color fundus imaging, Infra-Red (IR) imaging, Red-Free and Low-Red imaging.

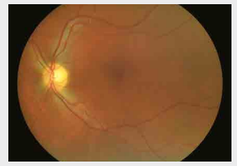


True Color Fundus
True color fundus images are the gold standard in fundus photography, examining the fundus in full color.

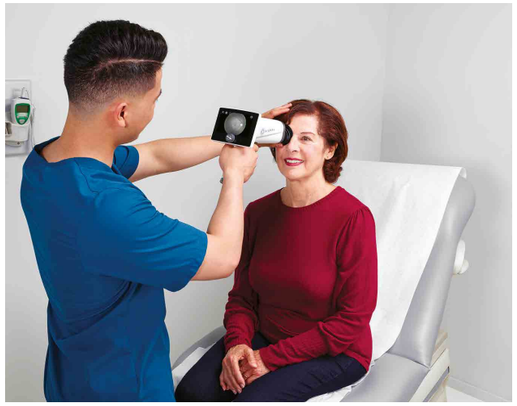


Red-Free
Red-Free images provide an enhanced visual contrast of anatomical details of the fundus.

Infra-Red
The invisibility of IR light makes it more acceptable for imaging children and light-sensitive patients.
As the penetration of IR light is better, it acts as a useful imaging tool in patients with media opacities like dense cataract. IR can help to visualize external layers (choroid vessels) as well.



Low-Red
Low-Red is a different color rendering of the standard color image and can be useful in some cases if the eye care specialist is used to working with other cameras with more green or orange color rendering.

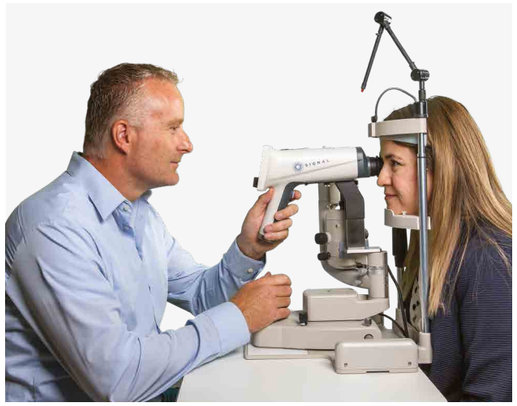


Portability

The Signal is ultra-lightweight and compact and comes in a smart carry case. The eye care specialist can visit bedridden patients in nursing homes, or at their own home. The Signal has an operating time of approximately 2.5 hours of continuous use. Images can be uploaded if WiFi is available or can be stored on the Signal embedded memory.

Ease of Use

The auto-focus function of the Signal ensures easy and fast image acquisition. In combination with the Topcon Slit Lamp adapter, positioning and alignment becomes even more effortless. Intuitive icons give access to easy to use menu options in the camera.



Flexible and Mobile Acquisition

Some patients are difficult to capture with a stationary retinal camera. The maneuverability of the Signal makes it easier to take images of an un-cooperative patient. The invisible IR light source does not distract the patient due to the low brightness and intensity and is more acceptable to children and light-sensitive patients. Elderly patients can be screened easily in a reclined or lying down position.

Slit Lamp Mount

A Slit Lamp is a standard instrument in most clinics. The Signal can be quickly and easily mounted to a Slit Lamp, adding fundus imaging to the patient workflow.