

OLYMPUS

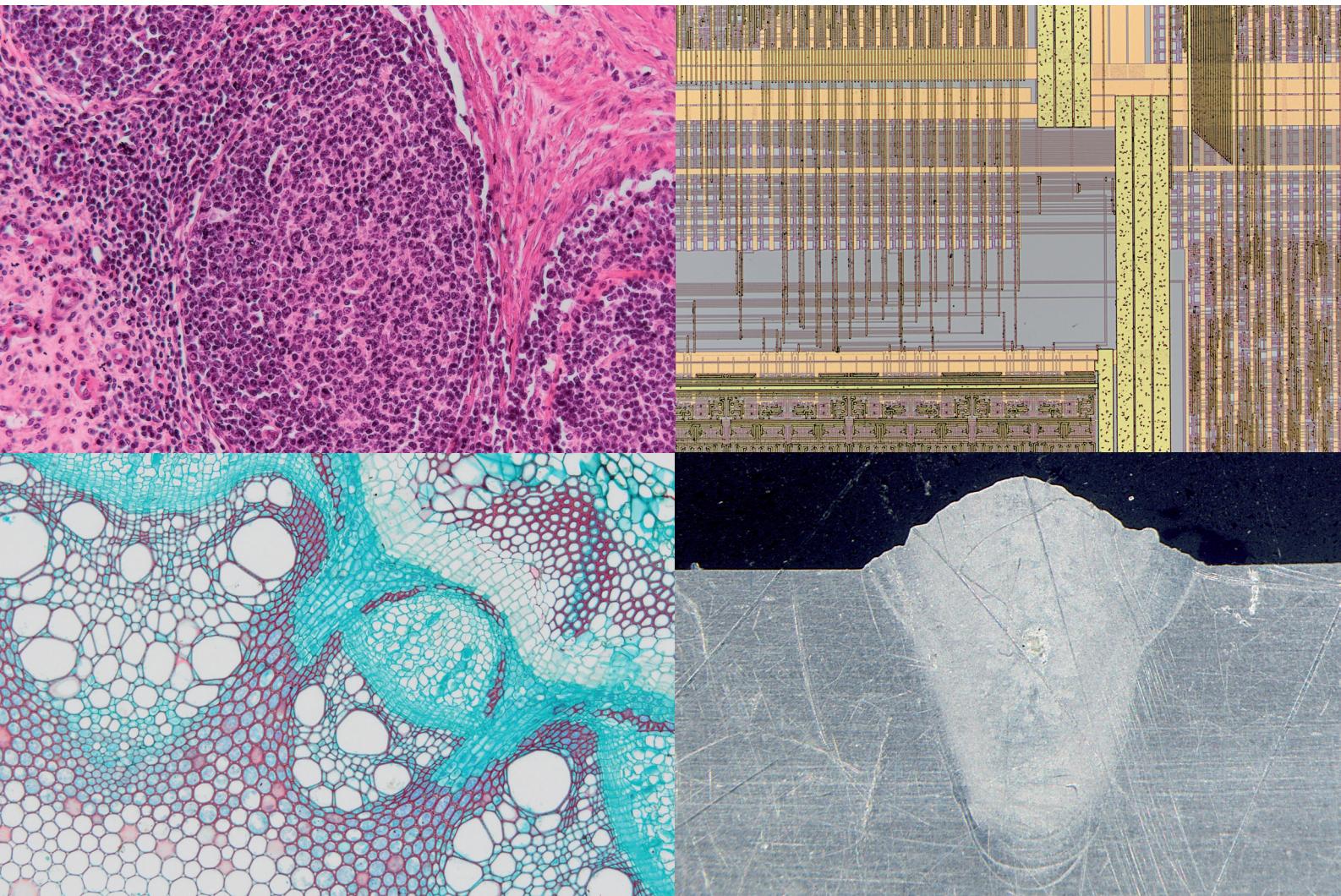
Your Vision, Our Future

Microscope Digital Camera

SC50

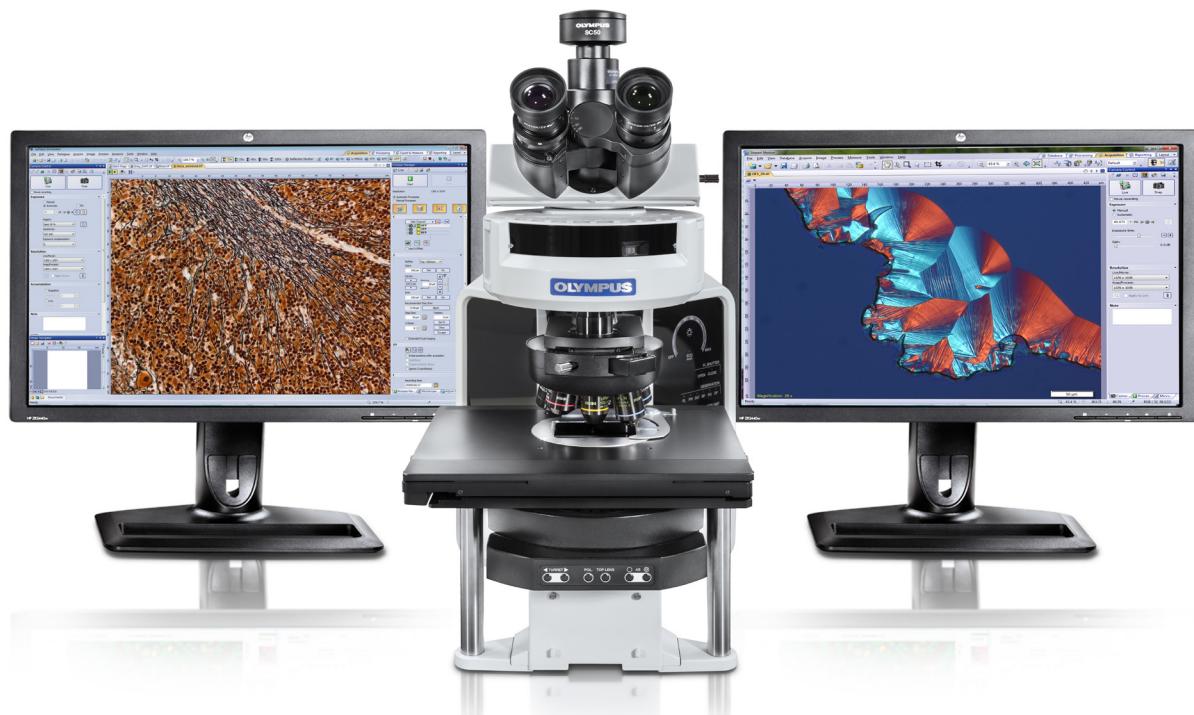
Speed, Resolution, Sensitivity, Dynamic Range, and
Color Fidelity for Imaging Applications

NEW



Outstanding Image Quality, Enhanced Sensitivity, and Fast Frame Rates at Full Resolution

The SC50 5-megapixel color camera for microscopy provides fast frame rates with accurate and reliable natural color reproduction. The camera offers high spatial resolution to resolve even the smallest details and impressive sensitivity to capture every detail with its ‘On-Sensor Light Guide’ technology. The SC50 features active noise reduction with Olympus Smart Image Averaging (OSIA), automatic white balance, and the direct support of videos in full HD format. This makes the SC50 an ideal choice for all customers in life and materials sciences, industrial and educational applications, and digital documentation.



Excellent Performance for a Broad Range of Imaging Applications

- Powerful 5-megapixel image sensor to keep up with the best optical resolution

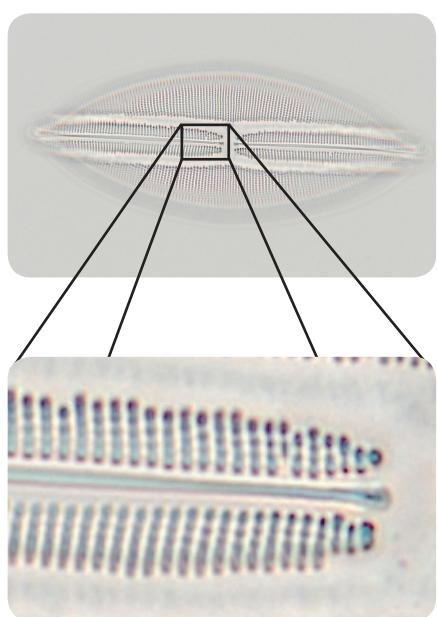
The SC50 sensor is equally at ease in producing detailed 5-megapixel images and comfortable full HD videos. The pixel size of $2.2\text{ }\mu\text{m} \times 2.2\text{ }\mu\text{m}$ offers a resolution that is able to keep up with the optical resolution of the best lenses in the Olympus range of objectives.

- Active noise reduction with Olympus Smart Image Averaging

The SC50 features Olympus Smart Image Averaging (OSIA), an active noise reduction technology that guarantees clean and noise-free images. In combination with the 12-bit depth, this provides an extraordinary dynamic range.

- Increased sensitivity with ‘On-Sensor light guide’ technology

On-Sensor light guide technology reduces the scattering of light inside the sensor, precisely focusing it on the individual pixels. This directly translates into a noticeable improvement in overall sensitivity, providing bright and vivid images. This technology ensures lower exposure times, which leads to a faster live image even under low light conditions and allows the light level to be kept low when switching from camera to eyepieces, avoiding flash blinding.



Diatom

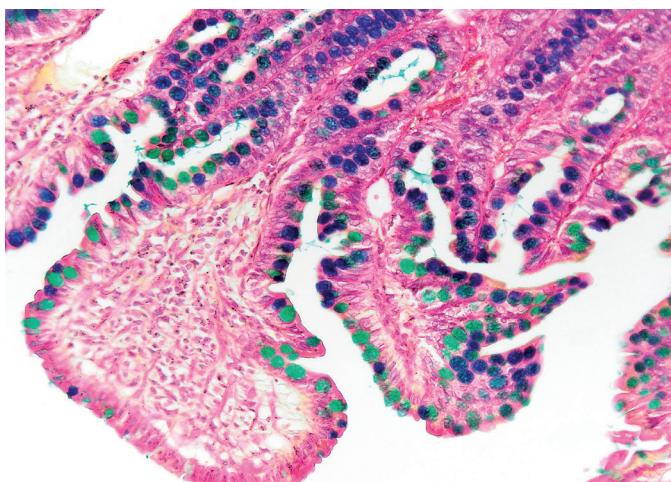
Precise Colors, Always

○ Automatic White Balance

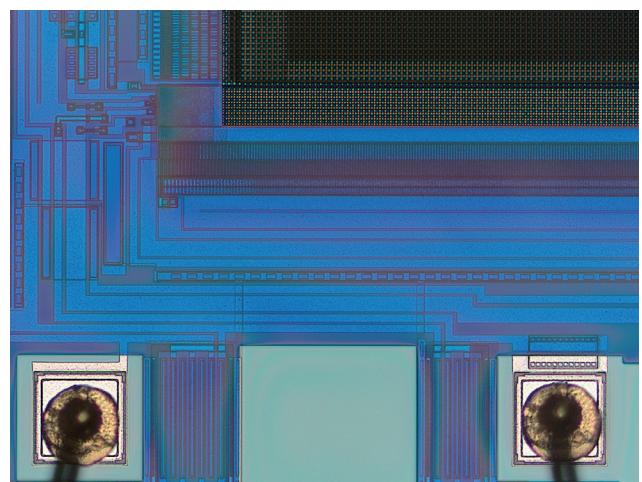
Already active in the live image, automatic white balance (AWB) automatically removes unwanted color casts without any user intervention under a broad variance of common illumination conditions. Using AWB, the user can freely change illumination conditions to their needs, while the images keep the neutral color balance. Being automatically applied to snapshots, the AWB avoids the need for post image capture white balance correction.

○ True color accuracy

The Olympus color profiling technology ensures true color fidelity and reproduction without user intervention. This fully integrated ICC color reproduction technology enables the capturing of lifelike images, preserving even the smallest details and subtle color variances. At every single stage, from oculars up to the monitor, the 'real' image will be acquired and displayed. An integrated raw data shading correction and high quality sharpness filter offer additional benefits to get every detail out of the images.



Intestine



CCD sensor

Advanced Performance Combines with Simple Operation

○ Fast live frame rates

For quick and effortless locating of suitable specimen segments directly on-screen, adjusting the microscope parameters, panning, and focusing the SC50 provides a high frame rate of more than 15 frames per second (fps) at full resolution, and a high rate of 32 fps in full HD mode. Binning modes are furthermore available to keep a fast frame rate in low-light situations or to obtain even faster frame rates for fast-moving samples.

○ Data transfer

The SC50 features state-of-the-art data transfer via a USB 3.0 interface for best possible performance and long-term compatibility as well as quick connection to compatible computers and fast transfer of image data using just one cable.

○ Simple operation

The SC50 is completely integrated into OLYMPUS cellSens and OLYMPUS Stream, which guarantees intuitive operation - from image acquisition to image processing, report generation, data export, and global networking of images and reports.

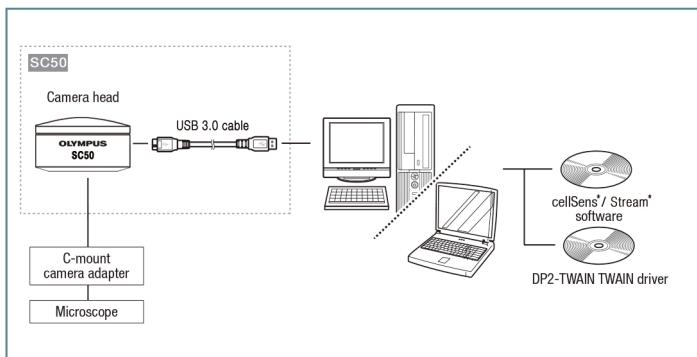


Intuitive camera control



The SC50 is compliant with the USB 3.0 standard for quick connection to compatible computers and fast transfer of image data.

SC50 PC System Configuration Diagram



* cellSens and Stream are not for clinical diagnostic use.

SC50 Specification

Image Sensor	Color CMOS
Sensor Type	Aptina MT9P006STC
Sensor Size	1/2.5 inch
Resolution (max.)	2,560 × 1,920 pixels (4/3) 1,920 × 1,080 pixels (Full HD 16:9)
Pixel Size	2.2 × 2.2 µm
Binning	2x, 4x
A/D Converter (Bit Depth)	12-bit
Exposure Time	From 31 µs to 2.74 s 15 fps at 2,560 × 1,920 pixels (4:3) 36 fps at 1,280 × 960 pixels (4:3) 47 fps at 640 × 480 pixels (4:3) 32 fps at 1,920 × 1,080 pixels (16:9), full HD 71 fps at 960 × 540 pixels (16:9) 77 fps at 480 × 270 pixels (16:9)
Live Frame Rates	
Cooling System	n/a
External Trigger	n/a
Data Transfer	USB 3.0
Color Profiles	Olympus real-time color profiles
Partial Readout	in software Olympus Smart Image Averaging (OSIA)
Remarks	High sensitivity (On-Sensor Light Guide Technology) Automatic White Balance (AWB) High frame rate at full resolution Windows 8/8.1 32-bit and 64-bit Windows 7 32-bit and 64-bit
Operating System	
Dimensions	58 mm (Ø) × 33 mm (H)
Weight	approx. 182 g
Mount	C-mount

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OLYMPUS®

www.olympus.com

OLYMPUS CORPORATION
Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-0914, Japan
OLYMPUS EUROPA SE & CO. KG
Wendenstrasse 14-18, 20097 Hamburg, Germany
OLYMPUS SCIENTIFIC SOLUTIONS AMERICAS CORP.
48 Woerd Avenue, Waltham, MA 02453, U.S.A.
OLYMPUS SINGAPORE PTE LTD.
491B River Valley Road, #12-01/04 Valley Point Office Tower, Singapore 248373
OLYMPUS AUSTRALIA PTY. LTD.
3 Acacia Place, Notting Hill VIC 3168, Australia

OLYMPUS LATIN AMERICA, INC.
5301 Blue Lagoon Drive, Suite 290 Miami, FL 33126, U.S.A.
OLYMPUS (CHINA) CO.,LTD.
A6F, Ping An International Financial Center, No. 1-3, Xinyuan South Road,
Chaoyang District, Beijing, 100027 P.R.C.
OLYMPUS KOREA CO., LTD.
8F Olympus Tower, 446 Bongeunsa-ro, Gangnam-gu, Seoul, 135-509 Korea