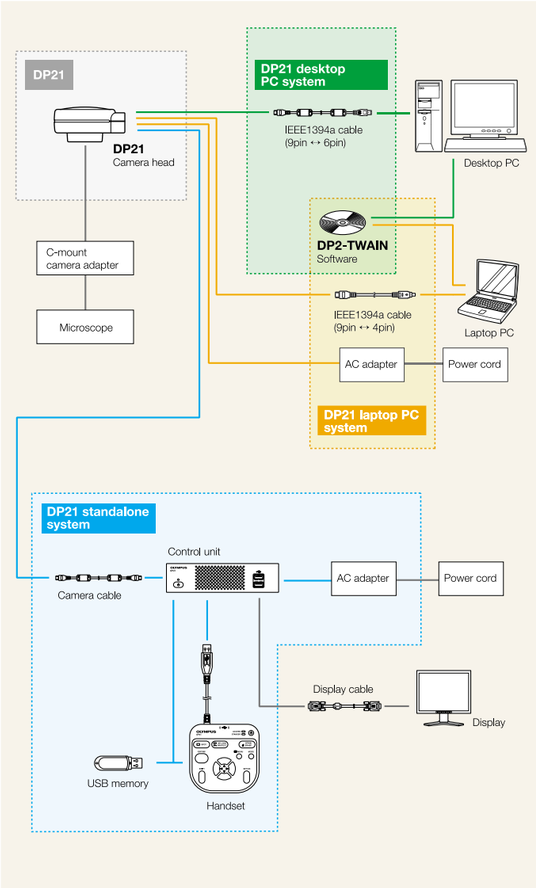
DP21 system diagram



DP21 specifications

Type		C-mount CCD camera head with control unit and handset
Imaging sensor	Size	1/1.8 inch color CCD
	Effective pixels	2.01 megapixels (total: 2.11 megapixels)
	Scanning method	Progressive scan
	Color filter	RGB Bayer primary color filter
	Recording range	7.04 (H) x 5.28 (V) mm, 8.8 mm (diagonal length)
	Maximum recorded pixels	1.92 megapixels (1600 x 1200)
Image size File format	Recorded pixels	TIFF | TIFF | 1600 x 1200 | 5760 kB SHQ | JPEG | 1600 x 1200 | Approx. 2140 kB or less HQ | JPEG | 1600 x 1200 | Approx. 720 kB or less SQ-L | JPEG | 800 x 600 | Approx. 535 kB or less SQ-H | JPEG | 800 x 600 | Approx. 180 kB or less
Image display	Resolution	WUXGA | 1920 x 1200 (display area 1600 x 1200) WSXGA | 1680 x 1050 (display area 1280 x 960) WSXGA | 1280 x 854 (display area 1024 x 768) WXGA | 1280 x 768 (display area 1024 x 768) WSVGA | 1024 x 600 (display area 800 x 600) UXGA | 1600 x 1200 SXGA | 1280 x 1024 (display area 1280 x 960) SXGA | 1280 x 960 XGA | 1024 x 768 SVGA | 800 x 600
Storage media		USB memory, network PC
Mount		C-mount
Sensitivity		Equivalent to ISO 100/200/400
Metering modes		1% center (spot), 30% center (average)
Exposure control		AUTO/MANUAL AE lock: Possible only during Auto Exposure Exposure correction: ±2 EV in 1/3 EV steps, possible only during Auto Exposure
Exposure time		AUTO: 2 to 1/20,000 sec. MANUAL: 8 to 1/20,000 sec.
Image display speed (frame rate)	Live image display	Rate: 15 frames per second (resolution: 1600 x 1200) 27 frames per second (resolution: 800 x 600) Magnifications: 1x, 2x (electric zoom) and 4x (electric zoom)
	Reproductive image display	Index display, magnifications 1x, 2x and 4x
Input/output		DC input Camera I/O: IEEE1394b I/F: USB 2.0 Display output: DVI-I (digital/analog RGB) Wired LAN: 100Base-TX/10Base-T Serial port: RS-232C D-SUB 9-pin
Scale display		View scale/Hide scale Available microscope total magnification: 0.01x to 9999.99x *Up to 8 total magnifications can be set
Measuring functions		Distance of 2 Points, 3 Points Circle, Distance between 2 Circle Centers, 3 Points Angle, 4 Points Angle, Perpendiculars, Polygon Area, Boundary Length, Distance of Parallel Lines, XY Distance, Count, and Cross Line *For optimal functionality, the following settings are necessary: Scale bar: On Scale bar setup: objective magnification input
Dimensions		Camera head: ø77 x 42.5 (H) mm Control unit: 180 (W) x 47 (H) x 200 (D) mm Handset: 102 (W) x 24 (H) x 102 (D) mm

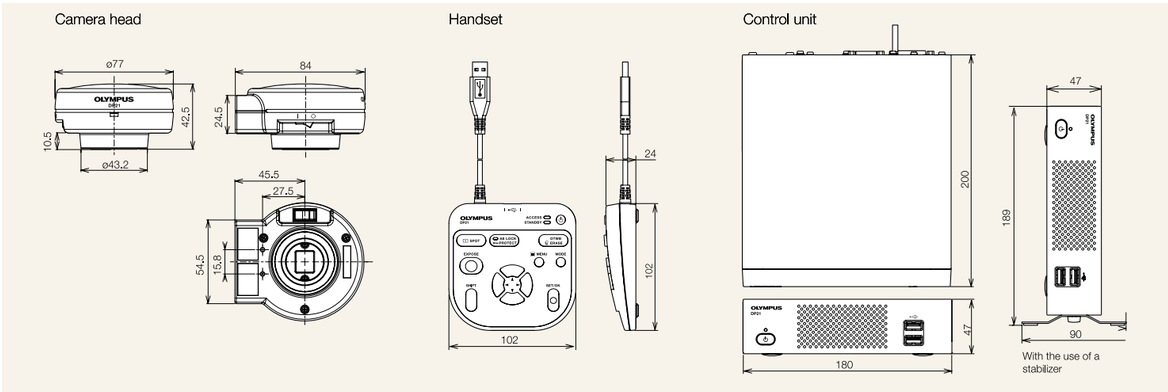
System requirements* for DP2-TWAIN (control software)

PC	Intel Pentium 4, Intel Xeon, or Intel Core Duo (or equivalent)
Memory	WindowsVista: 2 GB (3 GB recommended), Windows XP: 1024 MB RAM
HDD	Free space of 1 GB or more (at the time of installation)
Display	1280 x 1024 recommended (1024 x 768 or larger), 32-bit video card
Drive	CD-ROM drive
IEEE1394a cable	1394a port x 1 6-pin IEEE1394a port for desktop PC system 4-pin IEEE1394a port for laptop PC system (AC adapter connection required to camera head)
PC input device	Two-button mouse or Three-button mouse (with scroll wheel recommended), keyboard
OS	WindowsVista Ultimate 32bit SP2, WindowsVista Business 32bit SP2, Windows XP (SP3 or later)
OS language	Japanese, English
Web browser	IE6.0 or later

Please refer to our website for the applicable PCs.

DP21 dimensions

(unit: mm)



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• Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

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www.olympus.com

OLYMPUS CORPORATION
Shinjuku Monolith, 3-1, Nishi Shinjuku 2-chome, Shinjuku-ku, Tokyo, Japan
OLYMPUS LIFE SCIENCE EUROPA GMBH
Postfach 10 49 08, 20034, Hamburg, Germany
OLYMPUS AMERICA INC.
3500 Corporate Parkway, Center Valley, Pennsylvania 18034-0610, U.S.A.
OLYMPUS SINGAPORE PTE LTD.
491B River Valley Road, #12-01/04 Valley Point Office Tower, Singapore 248373
OLYMPUS AUSTRALIA PTY. LTD.
31 Gilby Road, Mt. Waverley, VIC 3149, Melbourne, Australia.
OLYMPUS LATIN AMERICA, INC.
5301 Blue Lagoon Drive, Suite 290 Miami, FL 33126, U.S.A.
OLYMPUS (CHINA) CO., LTD.
A8F, Ping An International Financial Center, No. 1-3, Xinyuan South Road, Chaoyang District, Beijing, China, 100027

OLYMPUS®

Your Vision, Our Future

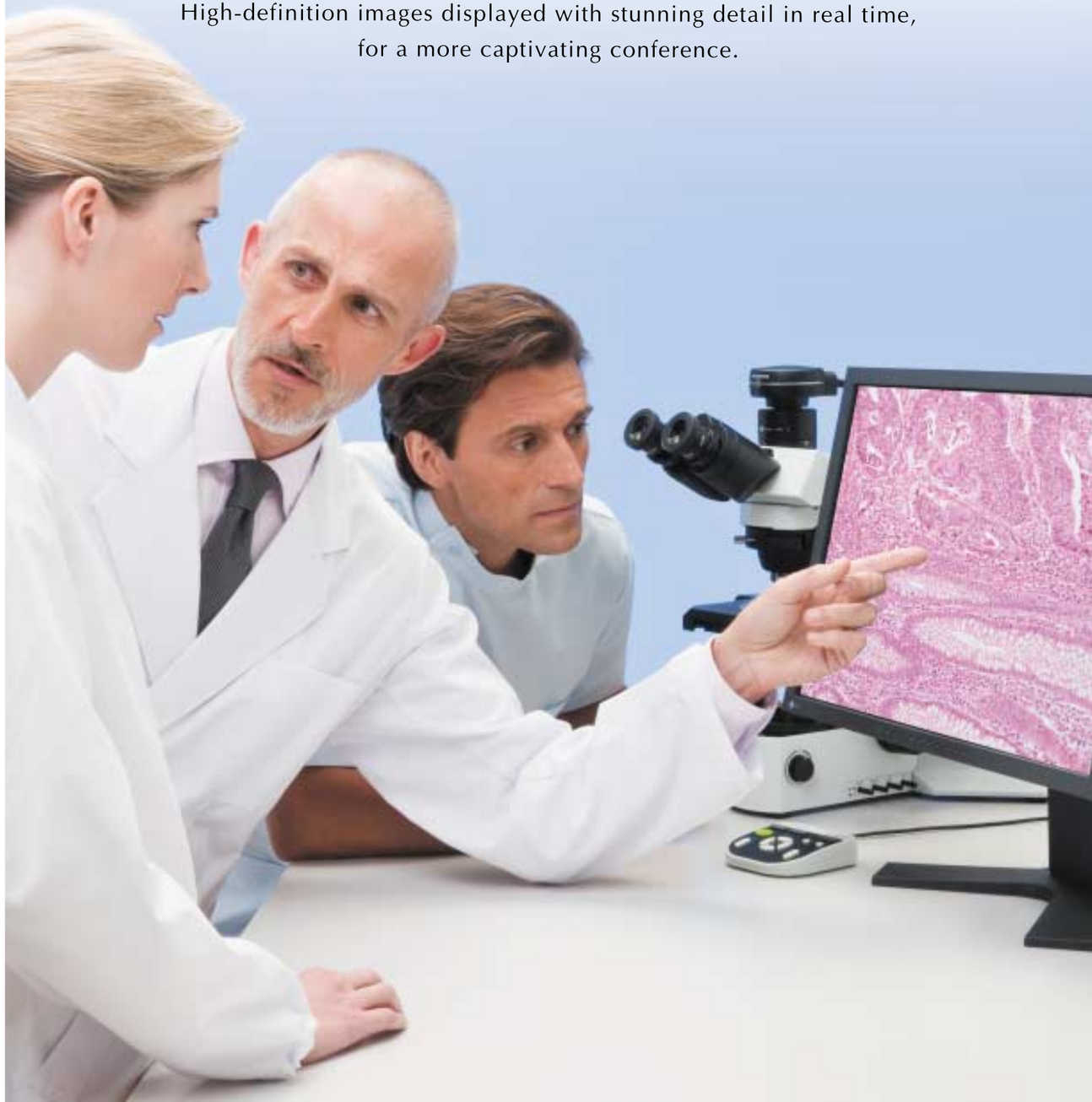
Microscope Digital Camera

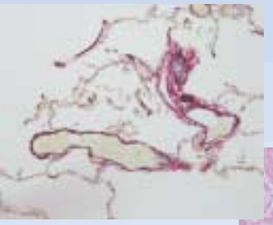
DP21

NEW

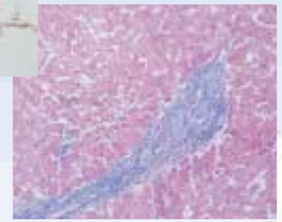
Presentations Come Alive

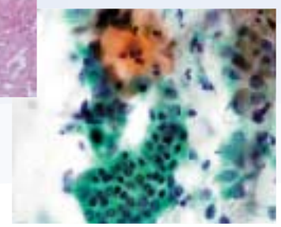
High-definition images displayed with stunning detail in real time, for a more captivating conference.





Seamless conference support with real-time image display and smooth operation.





The DP21 stand-alone digital camera for microscopes allows easy observation, focusing, framing and saving while enabling smooth, live image display of high-definition images for highly professional presentations.

Smooth, Live Image Display

■ Live, high-definition UXGA display at a smooth 15 frames per second.

The DP21 easily connects to digital devices such as LCD monitor and projectors, to deliver live, high-definition UXGA images. Image display also remains smooth despite changes in focus and movement of the observation site to enable truly polished presentations.

At conferences before the DP21...

- Adjusting the focus during presentation was awkward and inefficient.
- Stage movements created residual images and compromised presentation content.
- Image quality often suffered when trailing speed was prioritized.
- Colors seen through the microscope differed from those presented on the screen, making object identification more difficult.
- Conferences were cumbersome due to awkward software operation.

At conferences with the DP21, you can enjoy...

● Smooth, live image display.

- Monitor focusing is made simple.
- Residual images are a thing of the past, even when the specimen is moved.
- Image quality is maintained even under rapid movement.

● Stand-alone convenience.

- The DP21 is ready for use immediately after powering up.
- Easy-to-use, stand-alone control with handset.

● Perfect color match.

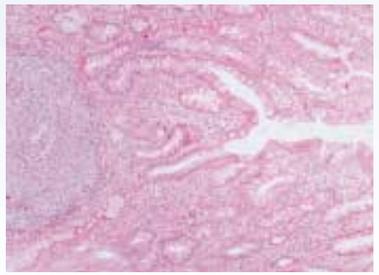
- Images displayed on the monitor are comparable to those seen through the microscope.

DP21 stand-alone configuration with BX51

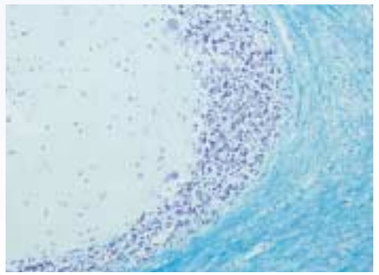
Images with Excellent Definition

■ High-resolution images with faithful color reproduction.

The DP21 is perfectly suited to conferences in the field of pathology and to capturing images for research presentations and diagnosis. The DP21's ability to capture and display images at UXGA (1600 x 1200) resolution with 16.70-million color reproduction makes it easier to recognize minute structural elements in specimens and allows for easy identification of histopathology specimens, from H&E staining to advanced staining and immunostaining specimens.



Intestinal epithelial metaplasia (H&E stain)



Cerebellum (KB stain)

Comfortable Operation

■ A convenient handset does away with the need for operation via PC and software.

The DP21 allows microscope images to be easily captured through the use of a convenient handset. A PC and software is not required. This makes it easy to capture an image for immediate viewing and confirmation. The image can be captured in three simple steps following power on.

Simple and simultaneous viewing and operation

Step 1 — **Press the MODE button to display a live image on the monitor.**

Step 2 — **Adjust focus and framing without taking your eyes of the monitor.**

Step 3 — **Press the EXPOSE button to capture the image.**

INFO/MENU screen

■ Connectivity to a mouse and other USB devices.

The control unit for the DP21 features USB ports for added versatility. Connection to a mouse and keyboard can simplify comment writing and note-taking. Connection to a large-capacity drive allows a high volume of images to be saved. And because the DP21 also features a LAN port, captured data can be easily saved to a server.

■ Direct PC control.

Optional software allows PC control of the DP21, which can make for a more efficient workflow when producing manuscripts and reports on the same computer.

DP21 laptop PC configuration with BX51