Leica IC80 HD

Compact, integrated high-definition stereomicroscope camera for professional visualization and documentation

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Go High Definition!

Leica IC80 HD Advantages

- Provides live HD image, use with or without a computer
- Very fast, high-resolution live preview on an HD monitor
- Ergonomic, easy switching between binocular tube and HD monitor
- Compact camera fits between the binocular tube and optics carrier
- Easy, affordable, fast, and high-quality image storage to an SD card
- Movie clips can be recorded directly to an SD card (MP4 format)
- Control camera functions via two buttons, IR remote control, or computer
- Store and manage captured images directly on the computer
- Best image quality and sharpness without vignetting or reflection
- Automatic, default, or user-specific selection of camera parameters
- High-resolution, fast live images with the 3-megapixel CMOS sensor
- USB2 connector for power supply and data transfer via computer
- Modular computer software or easy camera control, image acquisition, notation, and measuring

Digital high-definition (HD) image processing has never been easier. Leica Microsystems introduces the Leica IC80 HD camera, the latest addition to its family of high-performance stereomicroscope cameras for industrial and research applications. The affordable Leica IC80 HD is ideal for professional, high-quality image display when using an HD display unit. The complete ergonomic workstation allows the user to view samples on the monitor or through the binocular tube, and easily switch viewing mode, with or without computer connection. The camera sends a high-resolution live image directly to the HD monitor.

Seamless Design: The Leica IC80 HD fits between the optics carrier and binocular tube without an additional video or photo tube. It is designed to match newer generation Leica M-series stereomicroscopes. Previous M-series stereomicroscopes are easily retrofit with the Leica IC80 HD without additional adapters.

Ergonomic Workstation: Together with Leica ErgoTube™ and ErgoModule™ accessories, a Leica M-series stereomicroscope forms the platform for a highly compact, ergonomic workstation. And, the system provides comfortable viewing and switching between the binocular tube and HD monitor, which allows the user to always focus on the sample.

High-quality Images: The coaxial beam path of the stereomicroscope ensures the best image quality that reaches to the very edges of the monitor, and a reflection-free image seen through the binocular tube. The excellent reproduction quality, precision, and reliability can improve the efficiency and effectiveness of the user's work.

Full HD
1080

Any SD card, e.g., WORM and WIFI, palm and foot triggers can supplement the Leica IC80 HD camera.
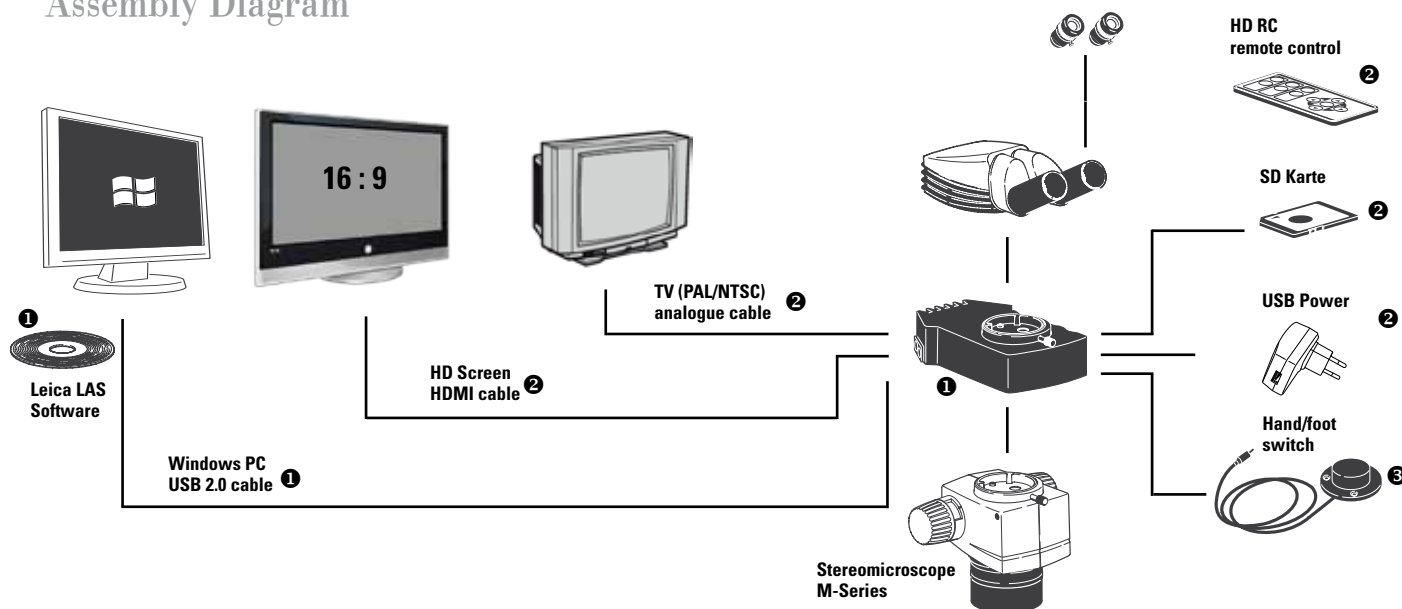

Easy to Operate: The Leica IC80 HD, specifically designed for stereomicroscope use, provides excellent image sharpness, brightness, and color impression. In addition, the user can work with the basic presets or adjust the camera's parameters as desired. Pushing the two buttons on the camera quickly switches camera modes, performs white balancing, or saves an image to an SD card.

Convenient Camera Control: The infrared (IR) remote control unit provides convenient control of camera settings including white balance, brightness, and image contrast. As needed, the user can rotate the live image 180° or pause for visual inspection using the binocular tube or monitor. At the push of a button on the remote control, movie clips can be recorded directly to an SD card for fast documentation or training purposes.

Leica M80 stereomicroscope with integrated
Leica IC80 HD camera, HD RC remote control,
LED3000 NVI illumination, ErgoTube, and full HD monitor.

Assembly Diagram

HD RC remote control ❷

SD Karte ❷

USB Power ❷

TV (PAL/NTSC) analogue cable ❷

HD Screen HDMI cable ❷

Hand/foot switch ❸

Leica LAS Software ❶

Windows PC USB 2.0 cable ❶

Stereomicroscope M-Series

IC80 HD – Specifications

Camera	
Exposure time	2 milliseconds to 2 seconds
Live image	45 fps (1280 × 720 Px) – 20 fps (1920 × 1080 Px)
Full frame image acquisition	2048 × 1536 pixels, 3.1 megapixels
Movie clip	720 × 480 pixels (MP4)
Sensor size	6.55 mm × 4.92 mm
Pixel size	3.2 µm × 3.2 µm
Sensor grade	Micron 1/2" CMOS
Gain	1× to 20×
Color depth	24-bit
Data format	JPEG / TIFF / BMP / MP4
Operating systems	Win XP, Win Vista, Win 7, Mac OSX
Software	LAS EZ software (PC), Leica Acquire (Mac) optional LAS modules available
Recommended computer configuration	Intel Pentium 4 or DuoCore, 2 GHz, 2 GB RAM, 24-bit graphics, 1248 × 1024, DVD

Mechanical and optical interfaces	
Mechanical	Standard connector between tube and Leica M-series optics carriers
Light distribution	Optical 50% / Camera 50%
Internal video magnification	0.5×
Sensor	Centered on optical axis ± 0.1 mm
Sensor	Horizontal/vertical orientation ±1º

Electronic interfaces	
Computer	USB 2.0, mini-USB plug
Analog video connector	RCA plug with PAL video signal or NTSC (standard) 320 × 240 pixels
High Definition connector	Mini-HDMI, HD-ready, and full HD
Pin switch	Selection: HD-ready or full HD
	Selection: PAL or NTSC
Remote trigger	Hand and foot trigger
LED with 2 colors	Ready (green), image capture (red)
Integrated slot	SD (Secure Digital) card 1-8GB, WIFI, WORM supported
Capture switch	For acquiring images
Exposure switch	For changing exposure modes

Other			
Power supply	USB 2.0 or external USB power pack		
Power requirement	4 W		
External power supply	Optional with stand-alone kit		
Operating temperature range	+5°C to 50°C		
Relative humidity	10 to 90%		
Weight	700 g (camera only)		
CE Declaration of Conformity	Available		
Tested standards	EMI/RFI:	EN55011-B	EN50082-1
	EMC:	61000-3-2	61000-3-3

Order numbers		
12 730 216	❶	Leica IC80 HD camera (incl. USB cable 1.8 m and LAS EZ software)
12 730 228	❷	Stand-alone kit (USB power pack, video cable 2 m, HDMI-cable 3 m, SD card, HD RC remote control)
12 730 229	❸	Palm or foot switch with 2 m cable

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