



LB-1910

Surgical Microscope for Dental



The **LB-1910 surgical surgical microscopes for Dental** are adopting the combinative structure which is in fashion internationally, are suitable for the examination and surgery in the dentistry and ophthalmology.

The main microscope can be equipped with straight, inclined or tiltable binoculars on the basis of different usages. It is also with manual focusing system or motorized focusing system. The retinal protection device and red reflex module are very useful in the ophthalmic operation. In order to demonstrate or store the document, the beam splitter, observer's monocular and adaptor for CCD camera or still camera are for option.

Features

- With full range of spare parts, and flexible combination, it is suitable for examination and surgeries in several kinds of fields.
- High-contrast image, great depth of field and excellent stereo effect.
- 5-step drum magnification changer, different working distance for options.
- The main microscope can be inclined back & forth and right & left, and move up & down.
- The counter-balanced spring arm, easy for adjustment.
- Co-axial cold light illumination, high intensity, no heating in the operation surface.

SPECIFICATION MICROSCOPE

| Objective lens (mm) | | 175 (with $f'=125\text{mm}$ binocular) | 200 | 250 | 300 | 400 |
|---------------------|---------------|---|------|------|------|------|
| 0.4 | magnification | 3.6 | 4.2 | 3.4 | 2.8 | 2.1 |
| | Visual field | 56 | 53 | 66 | 80 | 106 |
| 0.6 | magnification | 5.4 | 6.2 | 4.9 | 4.1 | 3.1 |
| | Visual field | | 35 | 44 | 53 | 70 |
| 1 | magnification | 8.9 | 10.4 | 8.3 | 6.9 | 5.2 |
| | Visual field | | 20.7 | 25.8 | 31 | 41.4 |
| 1.6 | magnification | 14.2 | 17.4 | 13.9 | 11.6 | 8.7 |
| | Visual field | | 12.3 | 15.4 | 18.5 | 24.6 |
| 2.5 | magnification | 22.3 | 25.5 | 20.4 | 17 | 12.7 |
| | Visual field | 9 | 8.3 | 10.4 | 12.5 | 16.6 |



* Accessories,
Camera and LCD
are optional

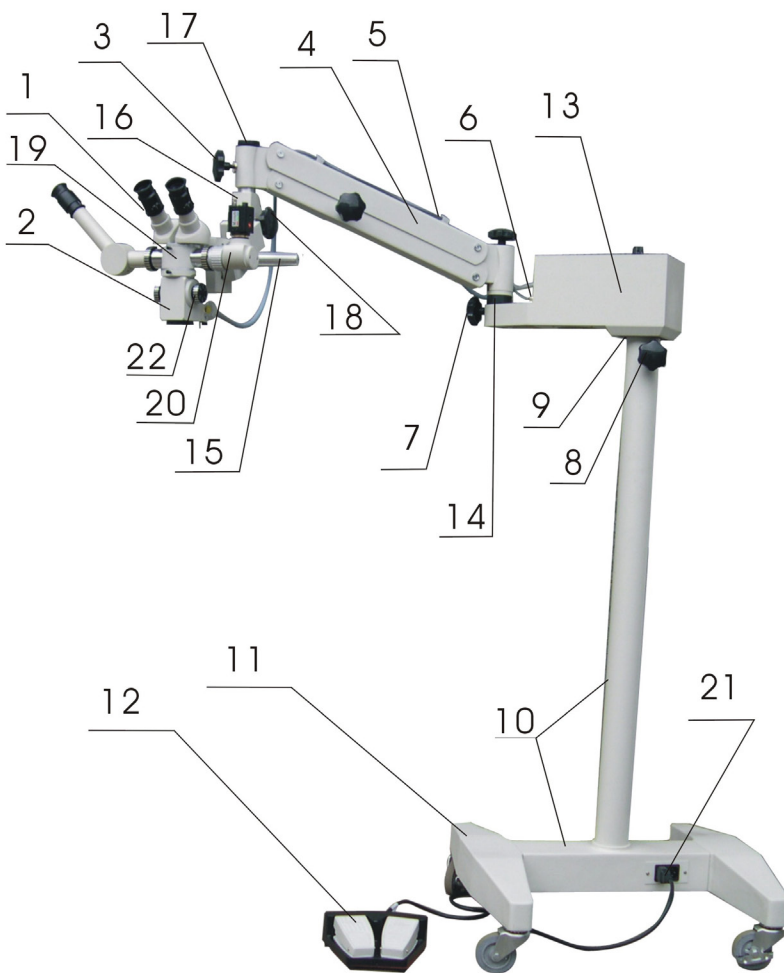
Structure Specifications

Eyepiece: 12.5X
 Diopter adjustment: -5D to +5D
 Interpupillary distance: 55-75 mm
 Range of manual focusing or motorized focusing: 40 mm
 Speed of motorized focusing: 3mm/s
 Extended arm: 1040 mm (max.)
 Elevation stroke for spring arm: 350 mm
 Rotation angle: 270 degree
 The diameter of illumination field: 56 – 80 mm

Electrical Parameters

Brightness: not less than 80000 Lux
 Halogen lamp: 15V/150W
 Power supply: 220V/50Hz or 110V/60Hz

Parts



1. binoculars
2. main microscope
3. lock hand-wheel
4. counter-balanced arm
5. optic fiber cable
6. electric cable and it's connector
7. fixing hand-wheel
8. lock hand-wheel
9. connecting part
10. column and bar
11. flank base
12. pedal control switch
13. cold light source arm
14. connecting screw and washer
15. inclination handle
16. connecting block
17. connecting hand-wheel
18. hand-wheel
19. beam splitter
20. adaptor for CCD camera
21. connectors for power supply and pedal control switch
22. magnification changer wheel

LC-8 Sony IMX185(C) 1/1.9" (7.2x4.5) C-mount WIFI+HDMI CMOS Camera



LC-8 Sony IMX185(C) 1/1.9" (7.2x4.5) C-mount WIFI+HDMI CMOS Camera has multiple interfaces (HDMI+WIFI+SD card) CMOS cameras and it adopts ultra-high performance Sony CMOS sensor as the image capture device. HDMI+WIFI are used as the data transfer interface to HDMI display or computer.

For HDMI out, The XCamView software will be loaded and a camera control panel and toolbar are displayed on the HDMI screen, in this case, the USB mouse can be used to control the camera, browse and compare the captured image, play back the video.

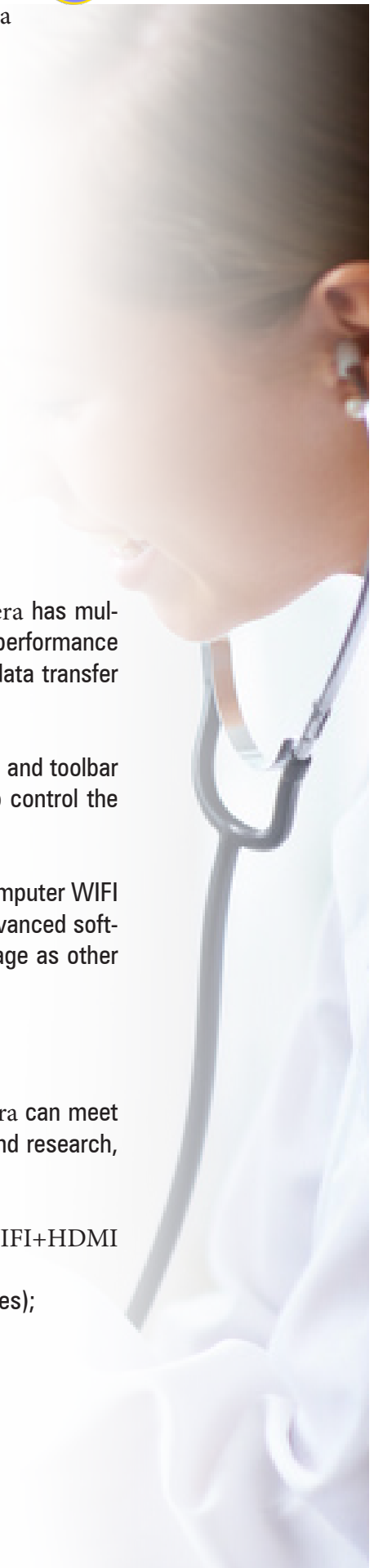
For WIFI out, unplug the mouse and plug in the USB WIFI adapter, connect the computer WIFI to the camera, then the video stream can be transferred to computer with the advanced software ImageView. With ImageView, you can control the camera, process the image as other USB series camera.

APPLICATION

LC-8 Sony IMX185(C) 1/1.9" (7.2x4.5) C-mount WIFI+HDMI CMOS Camera can meet various applications and can be widely used in industrial inspection, education and research, materials analysis, precision measurement, medical analyses etc.

The possible application of LC-8 Sony IMX185(C) 1/1.9" (7.2x4.5) C-mount WIFI+HDMI CMOS Camera is as follows:

1. Scientific research, education (teaching, demonstration and academic exchanges);
2. Digital laboratory, medical research;
3. Industrial visual (PCB examination, IC quality control);
4. Medical treatment (pathological observation);
5. Food (microbial colony observation and counting);
6. Aerospace, military (high sophisticated weapons).



FEATURES

The LC-8 Sony IMX185(C) 1/1.9”(7.2x4.5) C-mount WIFI+HDMI CMOS Cameras’ basic characteristic is as follows:

1. All in 1(HDMI+ WIFI) C-mount camera with Sony high sensitivity CMOS sensor;
2. For HDMI application, with built-in multiple-language XCamView software. The camera characteristic can be controlled by XCamView through the USB mouse. The other basic processing and choosing can also be realized by the XCamView.;
3. 1920 × 1080 (1080P) resolutions to match the current high-definition displayer on the market; Support plug and play application;
4. For HDMI application, 2.0M resolution image(1920*1080) can be captured and saved for browsing; For video, 1080P video stream(asf format) can be captured and saved;
5. With the USB WIFI adapter, the LC-8 Sony IMX185(C) 1/1.9”(7.2x4.5) C-mount WIFI+HDMI CMOS Camera can be used as WIFI camera, the ImageView/ImageLite advanced image processing software is used to view the video and capture image, support plug and play application;
6. Ultra-Fine color engine with perfect color reproduction capability(WIFI);
7. With advanced video & image processing application ImageView, which including professional image processing such as 2D measurement, HDR, image stitching, EDF(Extended Depth of Focus), image segmentation & count, image stacking, color composite and denoising(USB).

CAMERA SPECIFICATION

| | |
|-------------------|--|
| Model | LC-8 |
| Sensor & Size(mm) | Sony IMX185(Color) 1/1.9”(7.2x4.5) |
| Pixel(μm) | 3.75*3.75 |
| G Sensitivity | 1120mv with 1/30s |
| Dark Signal | 0.15mv with 1/30s |
| FPS/Resolution | 60/1920*1080(HDMI) 25/1920x1028(WIFI) |
| Binning | 1x1 |
| Exposure | 0.06ms~918ms |

Interface & Button Functions

| | |
|--------|----------------------------|
| USB | USB Mouse/USB WIFI Adapter |
| HDMI | HDMI Out |
| DC12V | 12V Power in |
| SD | SD Card Slot |
| ON/OFF | Power On/off Switch |
| LED | Power Indicator |

Other Specification for HDMI Out

| | |
|----------------------|--|
| UI Operation | With USB Mouse to Operate on the embedded XCamView |
| Image Capture | JPEG Format with 2M Resolution in SD Card(8G) |
| Video Record | ASF Format 1080P 30fps in SD Card(8G) |
| Camera Control Panel | Including Exposure, Gain, White Balance, Color Adjustment, Sharpness and Denoising Control |
| Toolbar | Including Zoom, Mirror, Comparison, Freeze, Cross, Browser Function, Multi-language and XCamView Version Information |



Other Specification for WIFI Out

| | |
|---------------------------|--|
| UI Operation | ImageView or ImageLite on Windows/Linux/OSX/ Android Platform |
| WIFI Performance | 802.11n 150Mbps; RF Power 20dBm(Maximum) |
| Maximum Connected Devices | 3~6(According to the Environment and Connection Distance) |
| White Balance | Auto White Balance |
| Color Technique | Ultra-Fine™ Color Engine (WIFI) |
| Capture/Control API | Standard SDK for Windows/Linux/Mac(WIFI) |
| Recording System | Still Picture or Movie (WIFI) |

Software Environment (for USB2.0 Connection)

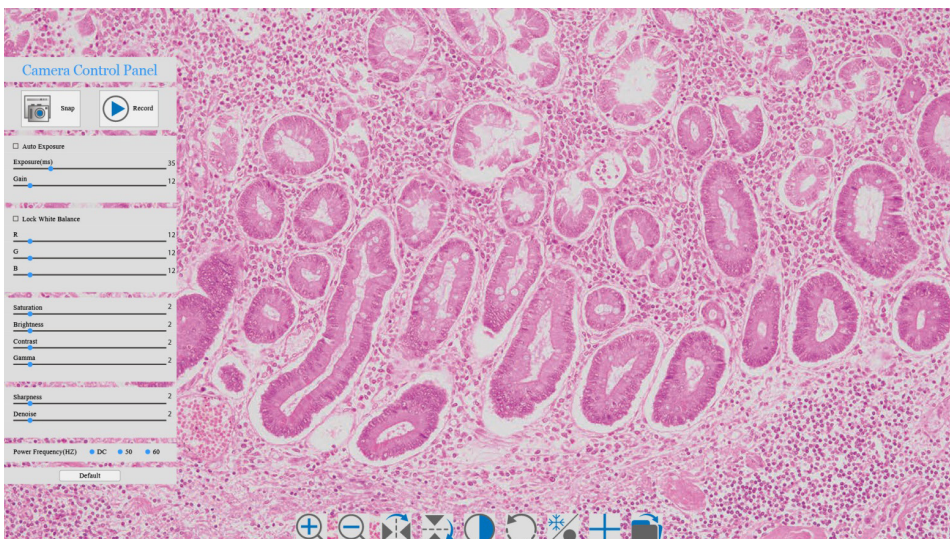
| | |
|------------------|---|
| Operating System | Microsoft® Windows® XP / Vista / 7 / 8 / 8.1/10(32 & 64 bit) |
| | OSx(Mac OS X) |
| | Linux |

PC Requirements

| | |
|-----------|---|
| CPU: | Equal to Intel Core2 2.8GHz or Higher |
| Memory: | 4GB or More |
| USB Port: | USB2.0 High-speed Port(As Power Only, not as the USB Data Transfer) |
| Display: | 19" or Larger |
| | CD-ROM |

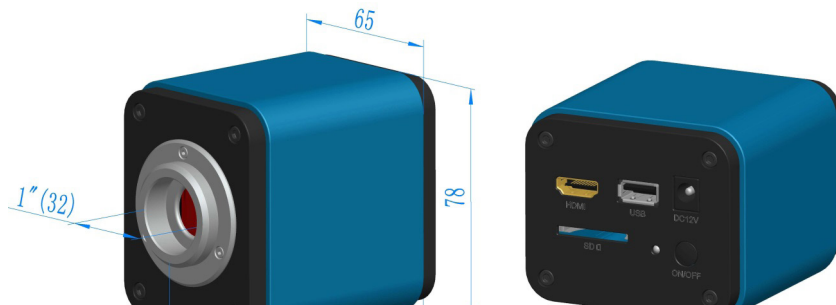
Operating Environment

| | |
|-----------------------|--------------------------|
| Operating Temperature | -10~ 50 (in Centidegree) |
| Storage Temperature | -20~ 60 (in Centidegree) |
| Operating Humidity | 30~80%RH |
| Storage Humidity | 10~60%RH |
| Power Supply | DC 12V/1A Adapter |



XCamView UI for Mouse Control

DIMENSION



PACKING INFORMATION



Standard Packing List

- A Gift box : L:25.5cm W:17.0cm H:9.0cm (1pcs, 1.43Kg/ box)
- B LC-8 Camera
- C Power Adapter: Input: AC 100~240V 50Hz/60Hz, Out: DC 12V 1A

American standard: Model: GS12U12-P1I 12W/12V/1A: UL/CUL/BSMI/CB/FCC

EMI Standard:EN55022,EN61204-3, EN61000-3-2,-3, FCC Part 152 class B, BSMI CNS14338

EMS Standard:EN61000-4-2,3,4,5,6,8,11,EN61204-3,Class A Light Industry Standard

European standard:Model:GS12E12-P1I 12W/12V/1A; TUV(GS)/CB/CE/ROHS

EMI Standard:EN55022,EN61204-3, EN61000-3-2,-3, FCC Part 152 class B, BSMI CNS14338

EMS Standard:EN61000-4-2,3,4,5,6,8,11,EN61204-3,Class A Light Industry Standard

- D HDMI Cable
- E USB Mouse
- F High-speed USB2.0 A male to A male gold-plated connectors cable /2.0m
- G CD (Driver & utilities software, Ø12cm)

Optional Accessory

- H Adjustable lens adapter
 - C-Mount to Dia.23.2mm Eyepiece Tube
 - (Please choose 1 of them for your microscope)
- I Fixed lens Adapter
 - C-Mount to Dia.23.2mm Eyepiece Tube
 - (Please choose 1 of them for your microscope)

Note: For H and I optional items, please specify your camera type(C-mount, microscope camera), engineer will help you to determine the right microscope adapter for your application.

- J 108015(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube
- K 108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube
- L Calibration kit
 - 106011/TS-M1(X=0.01mm/100Div.);
 - 106012/TS-M2(X,Y=0.01mm/100Div.);
 - 106013/TS-M7(X=0.01mm/100Div., 0.10mm/100Div.)
- M SD Card(4G or 8G)

