Camera specifications

[Main specifications]

Effective pixels	:	2.13 mega pixels 1945 (H) x 1097 (V) pixels CMOS colour image sensor IMX291(Sony) 1/2.8 inch 6.46mm diagonal
Transfer method	:	Progressive
Shutter system	:	Rolling shutter
Output image format	:	MJPEG
Data transfer system	:	USB 2.0 (Hi Speed)
Maximum frame rate	:	VGA 640 x 480 Pixels : 30 fps HD 1280 x 720 Pixels : 30 fps FHD 1920 x 1080 Pixels : 30 fps
Sensitivity (F5.6)	:	1300 mV CMOS sensor characteristics typical value
Driver	:	Not needed. USB Video Class (UVC) compatible Windows10
Interface	:	USB Mini-B
Main IPS functions	:	Adjustment: exposure (auto & manual), colour temperature (auto & manual), gain, saturation, sharpness, and gamma correction
Power supply	:	Power supply voltage 5.0 V (USB bus power) Maximum power consumption approximately 200mA
Camera properties	:	Brightness, contrast, hue, vividness, definition, gamma, gain, white balance, backlight correction

Capture Software

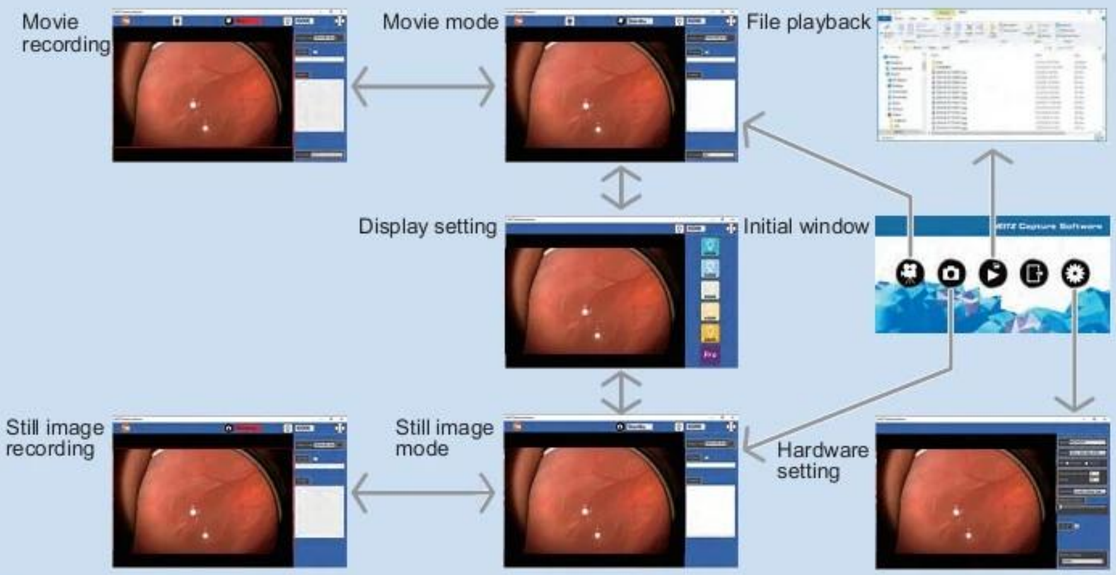
The special software to display and save the camera images is provided on a CD ROM.
(For software details, refer to the user's manual provided separately.)

Basic performance

Cameras	:	Compatible with USB cameras provided by Neitz.
File format	:	Movie MP4 /AVI / (sound recordable) Still image JPG
Resolution setting	:	Selectable from VGA, HD, or FHD
Comment entering	:	The file name is same as the image file. File name + western year + month＋day + hour + min. + sec. + millisecond in 3 digits + extension When a file name is entered: (File name) 2020-02-04 13-28-35-123-jpg(extension).txt
Display languages	:	English and simplified Chinese
Reverse image	:	Horizontal and vertical flip
Colour temperature	:	Selectable from 6000/5500/5000/4500/3300 K (in the simple setting window)
Flicker setting	:	50/60Hz OFF

System requirements and operating system
: Windows 10 Memory : 8 GB or more CPU : Core i7 Clock frequency 2 .5 GHz or more
Monitor : Full HD 1920 x 1080 or more recommended

Special Capture Software for SC-1 (NEITZ Capture Software)



NEITZ
Made by Neitz for Your Medical Field

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NEITZ
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NEW MODEL

Neitz Binocular Indirect Ophthalmoscope with Camera
IO-α LED CAMERA

Full HD 1080 High Resolution Camera SC-1 Series

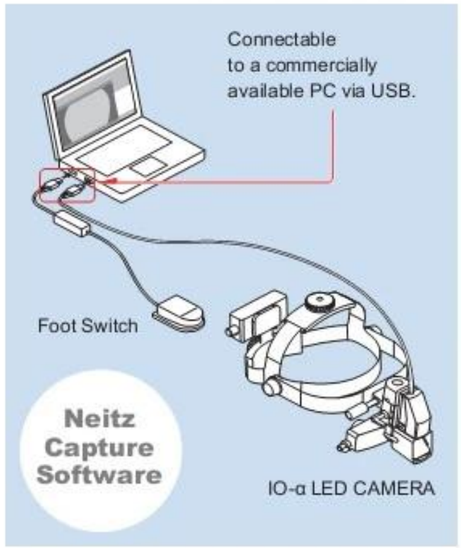


High Sensitivity
Full HD
1080

Capable of live streaming and to record fundus image accurately and precisely with sound.

The Neitz binocular indirect ophthalmoscope with camera IO-α LED CAMERA is a system of ophthalmoscope and highly sensitive FHD digital camera with the latest CMOS image sensor.
IO-α LED CAMERA is capable to provide and record the fundus image in still and motion picture.
IoT live streaming allows to share the digital image and sound realistically in the place where you want; in a treatment, training or operation room, even in a distant area or disaster site.
Sharing more recorded visual and audio data will serve for training of trainee doctors and medical staff.
Digital images will be also useful when explaining to the patient and family members.
The high-quality digital imaging solutions of Neitz support to streamline the medical services and medical safety measures.

Features of IO-α LED CAMERA



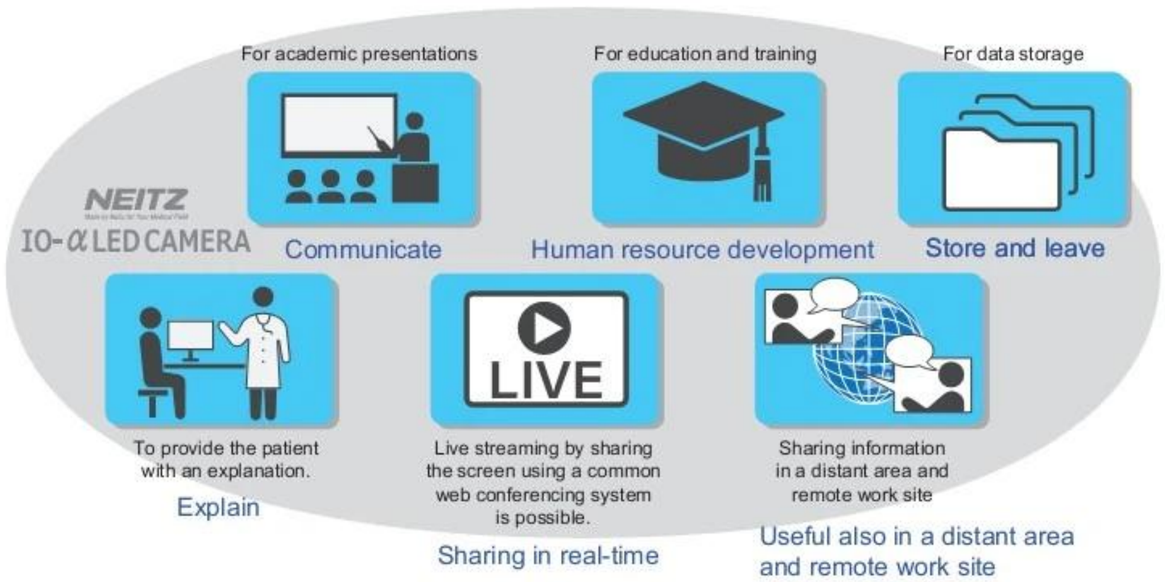
- High quality and high definition image
A highly sensitive FHD camera system equipped with the latest CMOS image sensor that tracks and records the details with precision.

- Reproducibility with natural colours and textures
Provides clear and high-definition images while reducing image degradation.
The user can use at ease in a medical setting where high level of reproducibility is required.

- The original Neitz Capture Software
The image system operations of the originally developed Neitz Capture Software is integrated into icons to save the effort to initialize the settings.

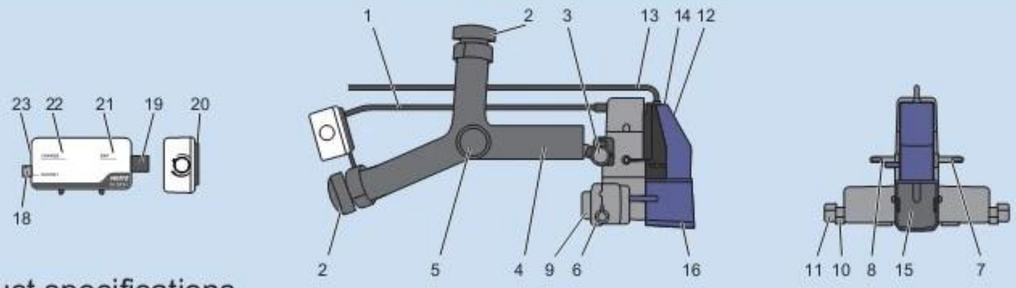
- The ultimate sensitivity effective to use for pediatric retinal diseases
The ultimate sensitivity allows to record an image of an eye with a small diameter. Suitable for observing the fundus of pediatric retinal diseases such as a retinopathy of prematurity and active stage classification. Allows also observing the fundus of infants in NICU.

Solutions IO-α LED CAMERA provides



Neitz Binocular Indirect Ophthalmoscope with Camera
IO-α LED CAMERA

Full HD 1080 High Resolution Camera SC-1 Series



Product specifications

Device type	Portable ME equipment
Type of protection against electric shock	Internally powered ME equipment
Classification of applied parts	No applied part
Degree of protection against harmful ingress of water and particulate matter	Device: IPX0 Foot Switch (pedal): corresponding to IP 28
Sterilization method	Not sterilizable
Suitability for use in high oxygen concentration environments	Cannot be used in high oxygen concentration environments.
Operation mode	Continuous operation

1. Connection cable	Connects the warm white LED of the light source and the battery pack.
2. Headband size adjustment knob	Tightens and loosens the headband. Located at the top and rear of the headband. Headband circumference: 520 to 640 mm (range of motion)
3. Camera unit fixation knob	Adjusts the vertical position and angle of the camera unit by loosening it.
4. Overband	Connects the camera unit and headband.
5. Overband fixation knob	Adjusts the angle of the overband by loosening it.
6. PD adjuster	Adjusts the pupil distance (PD). Adjustment range: 54 to 74 mm.
7. Aperture selection lever	Switches the illumination field diameters to 19 mm, 39 mm or 60 mm.
8. Filter selection lever	Selects between three filters (UV, red-free, cobalt blue).
9. Eyepiece	With built-in +1D lens (+2D lens for export model).
10. Illumination angle adjustment levers	Adjusts the illumination angle. Located on both sides of the camera unit and move in conjunction.
11. Observation angle adjustment levers	Adjusts the observation angle. Located on both sides of the camera unit and move in conjunction.
12. Camera cover	Contains the CMOS image sensor and the optical systems.
13. Output cable	3 m USB cable
14. Camera focus lever	Adjusts the focus of the CMOS camera.
15. Half mirror	Makes the shooting axis and the observation axis nearly coaxial.
16. Half mirror frame	Contains the half mirror.
17. Dimensions and weight	164 x 116.5 x 102.5 mm (without headband) / approximately 730g

18. Output jack	Connects to the light plug of the camera unit.
19. Illumination switch	Turns illumination on/off and allows for continuous intensity adjustment by rotating it.
20. Battery pack fixation catch	Keeps the battery pack in place on the headband.
21. Battery lamp	The colour of the lamp indicates the remaining battery capacity (green, orange, or off).
22. Charge lamp	Lights orange during charging and changes to green when fully charged.
23. Charge jack	Connects to the AC Adapter for charging.
24. Internal battery	Lithium-ion battery (3.7 V).
25. Charging time	Approximately 2 hours at maximum.
26. Output	DC 5 V.
27. Battery life	According to the battery specifications
28. Illuminance	Approximately 600 lx at maximum, approximately 300 lx at the middle position (when using the UV filter).
29. Continuous illumination time	Approximately 5 hours at maximum intensity
30. Dimensions and weight	90 x 45 x 30 mm (without protrusions) / approximately 90 g
31. AC adapter	Type: SMI-10-5-V-I38 Power input: AC 100 V to 240 V, 0.3 A, 50 Hz to 60 Hz, DC 5 V 2.0 A