

## ■ Main specifications [DERMOSCOPE DZ-S50]

Model	DZ-S50
Lens Magnification	6×/9× (with optional conversion lens)
Focal Length	f=50mm/f=31.25mm (with optional conversion lens)
Maximum Effective Diameter	40.5mm
LED Lights	6 polarized lights, 3 non-polarized lights
Power Supply	Lithium ion battery (built-in)
Battery Life	Approx. 120 minutes (with LED light continuously on)
Dimensions	67.5 (W) × 140.2 (H) × 23.1 (D) mm
Weight	Approx. 125g/145g (with optional conversion lens)
Bundled Accessories	AC adapter for charging (AD-M50300A), instruction manual

## ■ Included



DERMOSCOPE  
DZ-S50

AC adapter for  
camera charging

## ■ Options

Conversion lens  
DSL-50M



## ■ Main specifications [DERMOCAMERA DZ-D100]

Model	DZ-D100	
Valid Pixels	5184×3888 Approx. 20.16 megapixels	
Image Sensor	1/2.3-inch CMOS (back-illuminated type)	
	Total Pixels	5352×3950 Approx. 21.14 megapixels
Image File Formats	Still Images	JPEG (Exif Ver 2.3), DCF2.0 compliant, DPOF non-compliant Recorded pixels: 5184×3888
	Video	MOV format, H264/AVC-compliant, IMA-ADPCM audio (monaural) Recorded pixels: 1600×1200 (UXGA), 30 fps
Recording Media	SD Memory Card, SDHC Memory Card, SDXC Memory Card	
Recording Capacity	Still Images	Recording Media 16GB Approx. 1,860 shots
	Video	Maximum Video File Size
		Recording Media 16GB
Lens	Construction	9 elements in 6 groups
	F-number	F3.33
	Focal Distance	f=7.67
	35mm Film Equivalent	53.5mm (single-focus lens with filter switching unit)
Zoom	Digital zoom 8× Zoom resolution: 0.1×	
ISO Sensitivity (Standard Output Sensitivity)	NORMAL mode: Auto Close-up (DERMO) photography: Fixed	
Data Transfer Method	Wi-Fi / micro USB cable / SD memory card	
Wireless Communications	Compliant standard: IEEE 802.11b/g/n, range of frequencies used: 1-13 ch, encryption method: WPA2	
Monitor Screen	3.0 TFT color LCD, 720×480 pixels, 1,036,800 dots (RGB) Capacitance touch panel	
Power Supply	Lithium-ion battery (DNP-100M) × 1	
Battery Life	Number of Shots	Approx. 175 shots
	Actual Video Recording Time	Approx. 45 mins. (during continuous shooting)
Dimensions	127.5 (W) × 76.0 (H) × 86.1 (D) mm	
Weight	Approx. 395g (incl. battery & memory card), approx. 350g (w/o battery & memory card)	
Bundled Accessories	Lithium-ion battery (DNP-100M), AC adapter for camera charging (AD-M50300A), lens cap, lens removal tool, Quick Start Guide	

## ■ Included



DERMOCAMERA  
DZ-D100

Lens cap

Lens removal tool

AC adapter for  
camera charging

Lithium-ion battery

## ■ Options

Small-diameter & 3D adapter set  
DAS-100M



Microscope adapter  
DMS-100M



Lithium-ion battery  
DNP-100M



AC adapter for DZ-D100  
AD-M50300A



# CASIO®



# D'Z IMAGE

Digital camera for  
dermal observation and photography

## DERMOCAMERA

### DZ-D100

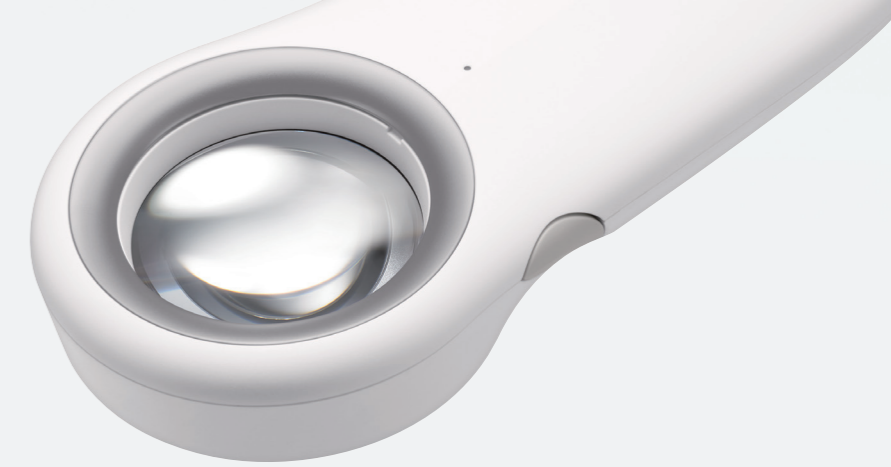


Scope for dermal observation

## DERMOSCOPE

### DZ-S50

●The liquid crystal panel of the monitor screen uses high-precision technology that provides a pixel yield in excess of 99.99%. This means that only a very tiny number of pixels may not light or may remain lit at all times. This is due to the characteristics of the liquid crystal panel, and does not indicate malfunction. ●Walk-in repair service not available. ●Operation check data storage: 16GB SDHC memory card (SanDisk) ●The SD logo is a trademark of SD-3C, LLC. ●Windows 10 is a registered trademark or trademark of Microsoft Corporation in the US and other countries. ●HDMI is a trademark or registered trademark of HDMI Licensing LLC. ●Wi-Fi is a registered trademark of Wi-Fi Alliance. ●All other company and product names are registered trademarks or trademarks of the respective companies. ●All specifications, prices, and designs mentioned herein are subject to change without notice. Colors as shown here may differ from the color of the actual product. ●All screens are computer-generated images. ●All photos, including sample images, are provided for illustration purposes only. ●The information in this catalog is current as of December 2019.



# Delivering innovation in medical imaging through medical-engineering collaboration

Casio is creating medical imaging innovations through medical-engineering collaboration that applies the original image processing technology that applies the original image processing technology Casio has developed over the decades to meet needs in the medical field. The idea of “using photography to get at the truth” is the concept driving this research and development. Casio has now brought the idea to fruition by offering dermatology hardware and services.

In partnership with leading doctors on the frontlines of medicine, Casio has developed equipment with simple configurations and smart operations to facilitate the handling of the many functions required for dermal observations. These new Casio tools provide comprehensive support for doctor’s consultations, supporting the key processes of observation, recording, utilization, and learning.

Casio aims to contribute to healthcare and the broader society by creating solutions that enable more accurate, efficient diagnosis and treatment for individual patients, supporting the work of doctors in clinical settings, and facilitating the early detection of disease.



Easier visual dermal observation

Dermal observation scope  
**DERMOSCOPE DZ-S50**



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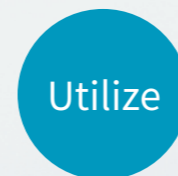
Quick, easy, detailed dermal photography

Digital camera for dermal observation and photography

**DERMOCAMERA DZ-D100**



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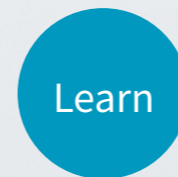


More efficient image management and observation with PC

Image management software  
**D'z IMAGE Viewer**



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Increase knowledge and refine skills

Online learning site  
**Dermoscopy Learning Service**



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## Japanese Precision Manufacturing

We deliver reliable and trusted Japanese quality from development through production and after-sales support.

Scope for dermal observation

# DERMOSCOPE

## DZ-S50

### Easier visual dermal observation

The compact footprint of DERMOSCOPE features an easy-to-hold shape. The scope comes equipped with a large diameter lens and high luminance LED light. Users can switch between polarized and non-polarized light with one touch, allowing easier close up observation of lesions.

#### Sharp detail | Large diameter lens

Features a large diameter 40.5mm lens with a wide field of vision and low distortion. Since it is easy to focus, users can observe lesions without putting their face right next to the affected area or making fine position adjustments. The lens magnification is 6x.

#### Easy to use | Shape and design

The grip fits comfortably in the hand, and power and polarization switching buttons are located where the user's fingers are positioned when holding it. It is lightweight, at approximately 125g. The symmetrical shape can be used with either the left or right hand.

#### Powers down by itself | Auto power off

Power supply turns off automatically approximately three minutes after being turned on. This prevents the device being left unattended and reduces concerns about suddenly running out of battery power.



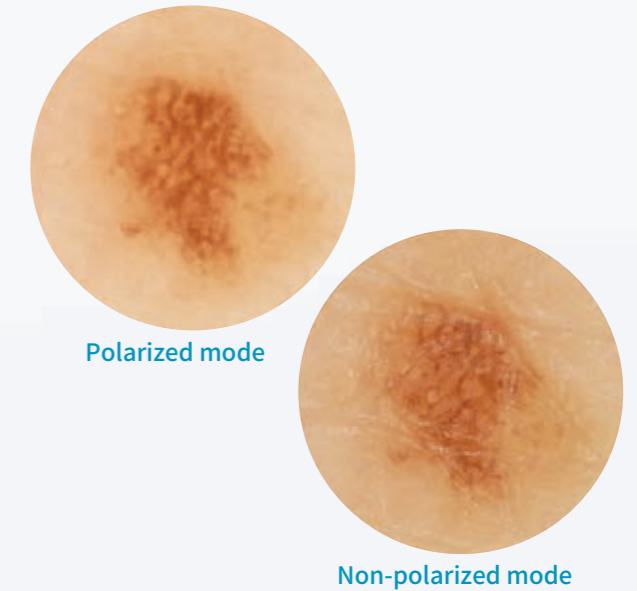
#### Bright and easy to see | High luminance LED light

The LED light has an illumination intensity of 30,000 lux, allowing users to see lesions clearly in sharp detail and assisting accurate observation of color. It is energy efficient, allowing about 120 minutes of continuous use on a single charge. This reduces concern about keeping patients waiting during recharge.



#### One touch | Polarized/non-polarized mode switching

The LED light can be changed from polarized to non-polarized mode with a simple switch. Polarized mode works best for observing pigment distribution beneath the skin's surface, while non-polarized mode is good for observing the condition of the skin's surface.



### Increasing DERMOSCOPE magnification

A convenient option is available to make observation even easier.

#### Conversion lens | DSL-50M

An easy-to-fit conversion lens is available and can increase lens magnification from 6x to 9x. This is useful for observing minute lesions such as scabies.



**DERMOCAMERA**

DZ-D100

**Dermal observations — quick, easy, detailed**

This digital dermatology camera for dermal observation and photography was designed to meet the requests of front-line clinical practitioners. Casio has packed its proprietary photographic and image processing technologies into a single camera to create functions that are useful for dermal observations. This easy-to-operate diagnostic tool provides strong support to medical professionals.

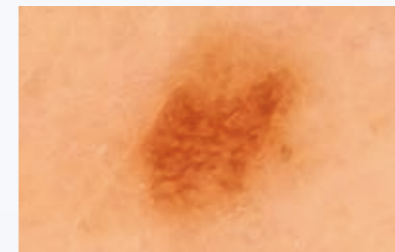
**Dual purpose Ordinary & close-up photography**

Both ordinary and close-up shots can be taken without switching lenses. The user can quickly photograph the entire lesion and then zoom in for close-up shots of the affected area. Photographed images can be used for referrals to other medical institutions and requesting opinions from other doctors.

\* Ordinary and close-up videos can also be taken.

**Ordinary shot****Close-up shot****Single shutter Polarized, non-polarized, and UV modes**

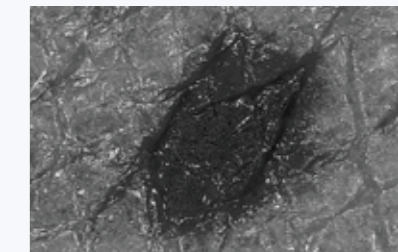
A single click of the shutter can yield polarized, non-polarized, and UV photos. No switching of filters is required, which saves time. \* UV photos snapped at 405nm wavelength. \* UV mode set with a simple ON/OFF switch.

**Polarized mode**

This mode blocks light emission from the surface of the skin, making it easier to observe pigment distribution beneath the skin's surface.

**Non-polarized mode**

This mode is good for observing the condition of the skin's surface.

**UV mode**

With UV photos, the edges of blemishes and spots are revealed in sharp definition.

**Measurements Scale display**

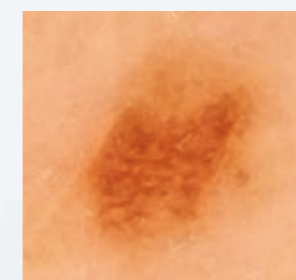
This function superimposes a scale over a close-up image, immediately showing the size of the affected area. Touch the scale to rotate it in the direction to be measured.

**Record an entire area Wide area shots**

The user can photograph the entire area affected, such as the back, which is useful in observing the course of a lesion.

**Low distortion Special lens**

Images are clear all the way to the edges, making it possible to accurately see the shape of the affected area; and their high-resolution captures microstructures in the affected area with fine precision.



Sample of a polarized photo.

**Bright and clear LED lights**

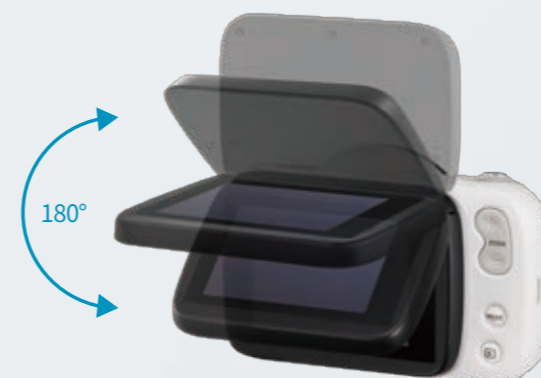
When taking an ordinary photo, uniform illumination from the ring light outside the lens enables faithful reproduction of color tones. In close-up mode, illumination from inside the lens yields a stable and clear image quality.



Ring light for ordinary shots

**Easy to view Tilt LCD monitor**

The LCD monitor can be tilted to different angles for easy visibility under all conditions.

**External monitor HDMI connector**

The camera can be connected via HDMI cable to a large monitor or projection screen for viewing of images, either in real time or afterward. This is useful for providing explanations to patients or making presentations at conferences.



\*HDMI cable not included.

Micro HDMI terminal

# Achieving convenience and ease of operation

Small size and light weight make the camera easy to hold and operate.

## Designed with the comments of doctors in mind

The grip features an easy-to-hold shape, and the round shape of the camera is soothing to jittery patients, while the white color and compact body create a clean appearance. These design features put high priority on the type of usability requested by doctors.



Easy-to-use LCD touch panel

## Easy to operate

Frequently used operations are assigned to easily located buttons. With a single touch of a button, the user can switch between close-up mode, microscope mode, and other modes that make for convenient dermal observations.



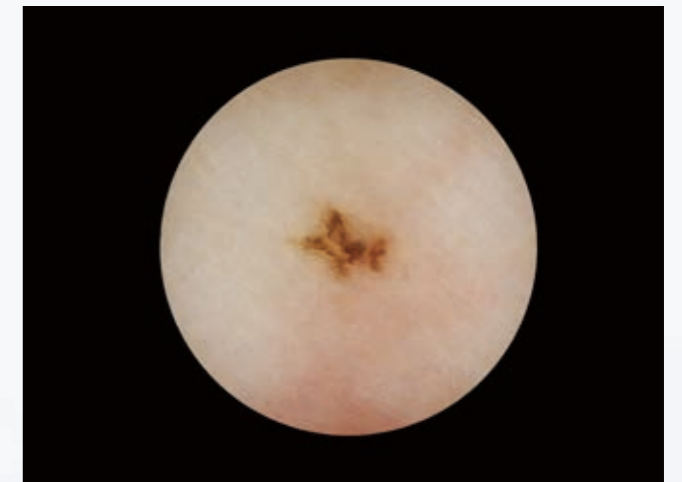
# DERMOCAMERA is now even easier to use

Convenient options that make observation even easier are available.

## Small-diameter & 3D adapter set | DAS-100M

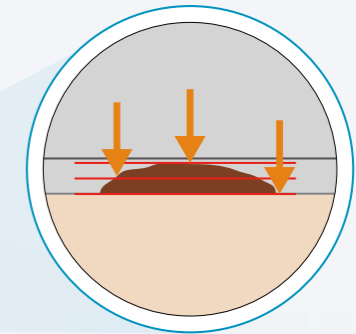
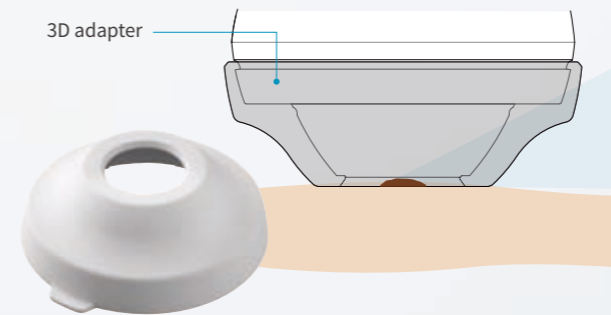
### Small-diameter adapter

When photographing lesions in locations that are difficult to focus on, such as between fingers or inside an ear, fit the small-diameter adapter to the camera to take the shot. The angle of view is 6mm.



### 3D adapter

This adapter holds the camera lens about 2mm away from the surface of the skin so it can be photographed without the lens pressing against a swollen lesion. The 3D adapter also facilitates the use of DERMOCAMERA AIF (All In Focus) mode.



**DERMOCAMERA AIF (All In Focus):**  
In this mode, the camera shoots multiple images with differing focal points and merges them into a single image that is in focus over a wide range. This is a good mode for photographing lesions that have a rough surface.

## Microscope adapter | DMS-100M

This adapter makes it possible to mount DERMOCAMERA to the eyepiece of a microscope. It can be mounted to eyepieces with an inner diameter of either 23.2mm or 30.0mm. The user can take pathological images observed through a microscope and can also use an HDMI cable to display images on an external monitor.



Utilize **Image management software**  
**D'z IMAGE Viewer**

# More efficient image management and observation with PC

DERMOCAMERA photos and videos can be easily managed on a personal computer using the D'z IMAGE Viewer application software. Magnifying and converting images is made simple.



## Easily manage multiple images

### Data transfer

AP mode (direct wireless connection between DERMOCAMERA and a PC) and STATION mode (wireless connection between DERMOCAMERA and a PC via a router) are available for transferring data via WiFi. Automatic transfer and bulk transfer are supported. When WiFi is not available, data can be imported with a USB cable or SD memory card.

\* USB cable and SD memory card are not included. The camera's USB terminal is a micro USB.

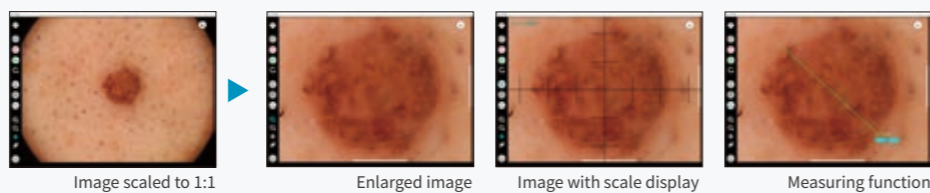
### Automatic sorting by patient ID

D'z IMAGE Viewer automatically sorts images tagged with patient IDs.

## Getting a detailed look at images

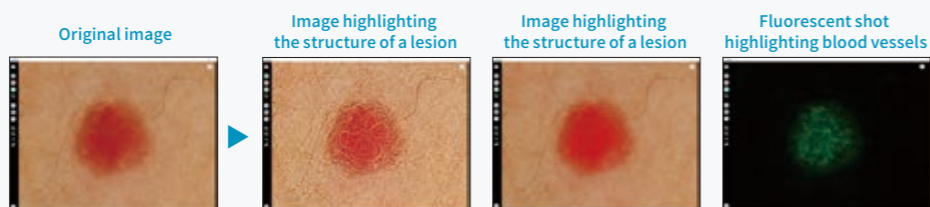
### Displaying images

Users can inspect images from DERMOCAMERA in great detail.



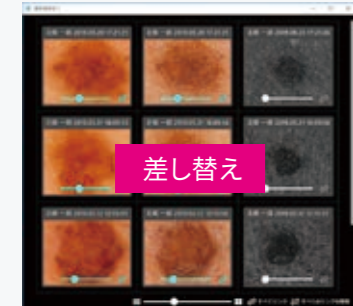
### Converting images

Images can be converted to bring lesion structure clearly into view or to highlight blood vessels.



\*The purpose of image conversion functions is to facilitate the clear viewing of lesions. They are not diagnostic tools.

### Displaying multiple images



Multiple images are displayed in a convenient list for comparing lesions.

### Printing images



Lesion information attached to an image can be printed for referrals to other medical institutions or requesting opinions from other doctors.

### Tagging images

Images can be individually tagged with such information as "name of disease," "location," "size," etc.

### Searching images

The desired images can be searched by "name of disease," "name of patient," "age," "gender" and other criteria.

### Outputting images

Image data can be exported with patient ID information deleted, enabling safe use for papers, etc.

Learn **Online learning site**  
**Dermoscopy Learning Service**

# Increase knowledge and refine skills

This reliable learning service was designed in a joint development process using medical-engineering collaboration. Users can access training based on a large number of cases and findings free of charge, and there is a wide array of support for doctors learning about dermoscopy.



## Learn the basics of skin structure

### Learning content

Contains many illustrations of skin surface colors and patterns and the internal structure of the skin. Learn about basic observations and terminology related to skin lesions.



## Improve skills through daily study

### Diagnostic training

Presents one question a day from the case data. Aims to increase diagnostic skills by offering a large number of cases and findings.



## Large number of valuable case images

### Case database

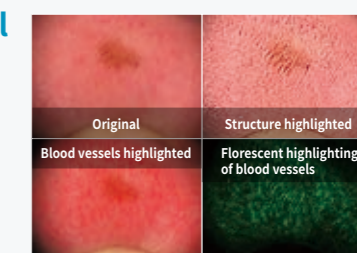
Contains over 2,000 items of case data with typical lesion findings. Efficiently learn about the relationship between lesion findings and disease by referring to the data.



## Easy to see important findings

### Image analysis tool

HDR conversion technology produces lesion images from dermoscopic images that make the internal structure and blood vessels of lesions clearer.



## Development Partners

**Masaru Tanaka, MD, Ph.D.**  
Professor  
Department of Dermatology  
Tokyo Women's Medical  
University Medical Center East

**Toshitsugu Sato, MD**  
Director  
Sato Dermatology Clinic

**CHIBA UNIVERSITY**

**Yaei Togawa, MD, PhD.**  
Assistant Professor  
Department of Dermatology  
Graduate School of Medicine,  
Chiba University

**Yosuke Yamamoto, MD**  
Assistant Professor  
Department of Dermatology  
Chiba University Hospital

**信州大学 SHINSHU UNIVERSITY**

**Hiroshi Koga, MD**  
Senior Assistant Professor  
Department of Dermatology  
University Hospital  
Shinshu University

**Akane Minagawa, MD, PhD.**  
Assistant Professor  
Department of Dermatology  
University Hospital  
Shinshu University

**Free downloads**

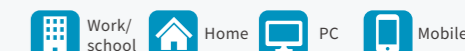
The software can be downloaded for free at Casio D'z IMAGE store.

<https://dz-image-store.casio.jp/dl/>

**Free membership registration**

Study at your own pace anytime anywhere.

<https://dz-image.casio.jp/derm/learn/>



\*See above mentioned site for recommended OS.

\*Terms of use: Dermoscopy Learning Service is a membership-based cloud service for education and learning, designed for medical professionals. The service and the images produced by the service are not for use in medical practice, including diagnosis and treatment.