

A picture says more than a thousand words!  
Live or recorded video showing your professional skills during procedures is  
very convincing – and excellent for documentation



**INNOVATIVE**

Upgrade your surgical microscope and / or colposcope, with the:  
Light weight, Smart, WIFI Transfer, and Mini Workstation capability

## **ALLTION ALL-CAM2**

FULL FUNCTION CAMERA

Full HD Live Video, Photography, Video Recording, Comparison, Measurement  
and Other Functions Await Your Exploration.

**ALL-CAM2, ALL CAN DO!**

This is an era of pictures & videos.

An era of visualization & documentation during examination, diagnosis, treatment and operating procedures.

This is also the era of the internet and sharing information!



You not only need high-definition displays of surgical examinations, diagnosis, treatment and operating procedures under microscopes/colposcopes on large screens (and in real time), but also need to record still images and video. You may also need to transmit videos to computers and smart phones to share information. It allows you to present patients with all the details in full HD format and to explain procedures for better patient communication. Assistants, students and other practitioners can watch the procedures at the same time, enabling teaching or consultation. Your excellent professional skills also can be presented at meetings or conferences.

High-definition photos and videos are essential to medical records, patient records, document cases, and academic reports and papers.

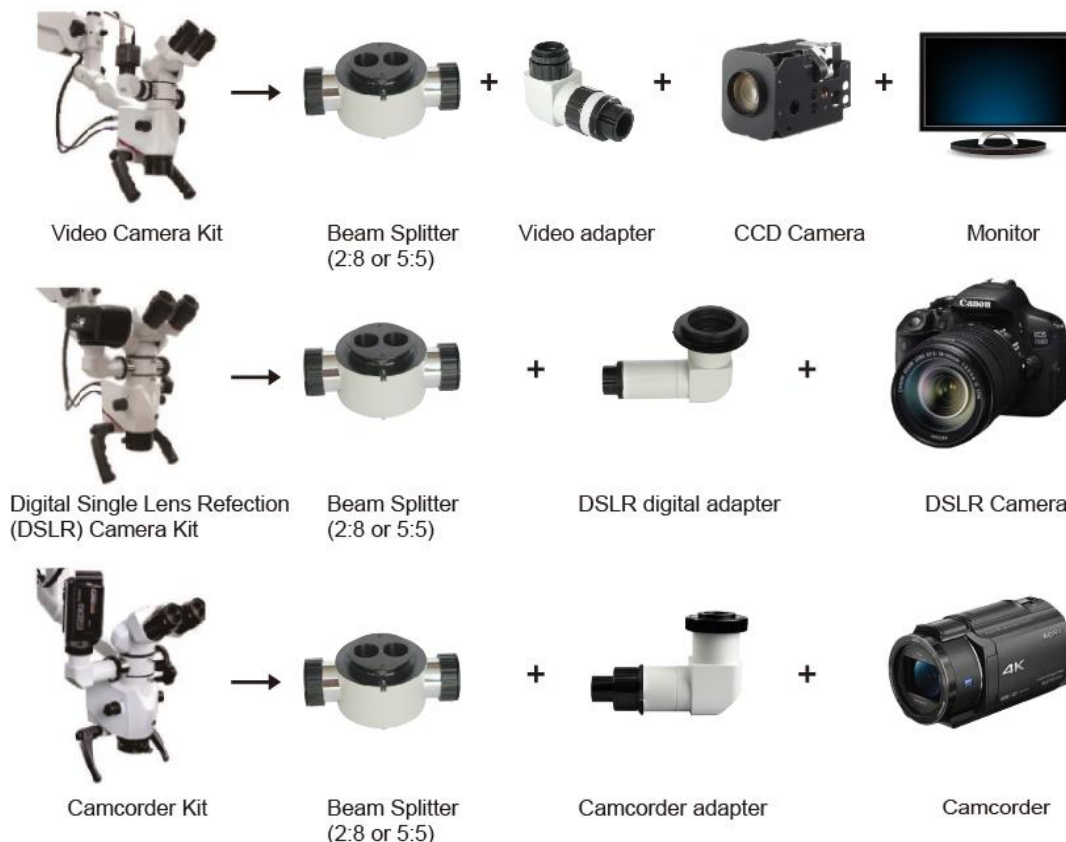


**ALLTION**

**ALL-CAM 2**

Full Function Camera

To achieve this, traditionally, you needed to install a beam splitter, various camera adapters and different cameras onto your microscope or colposcope, such as a high-definition CCD camera, digital single lens reflex camera or a Camcorder. However, a beam splitter has two outputs at most, limiting you to only two cameras at a time.



The camera adapter and camera are normally installed at one side, which causes an imbalance of the microscope optics and increases the risk of tilting. Moreover, after being connected with the beam splitter, camera adapter and camera, the (originally very maneuverable) surgical microscope and colposcope, becomes very heavy and more difficult to control.

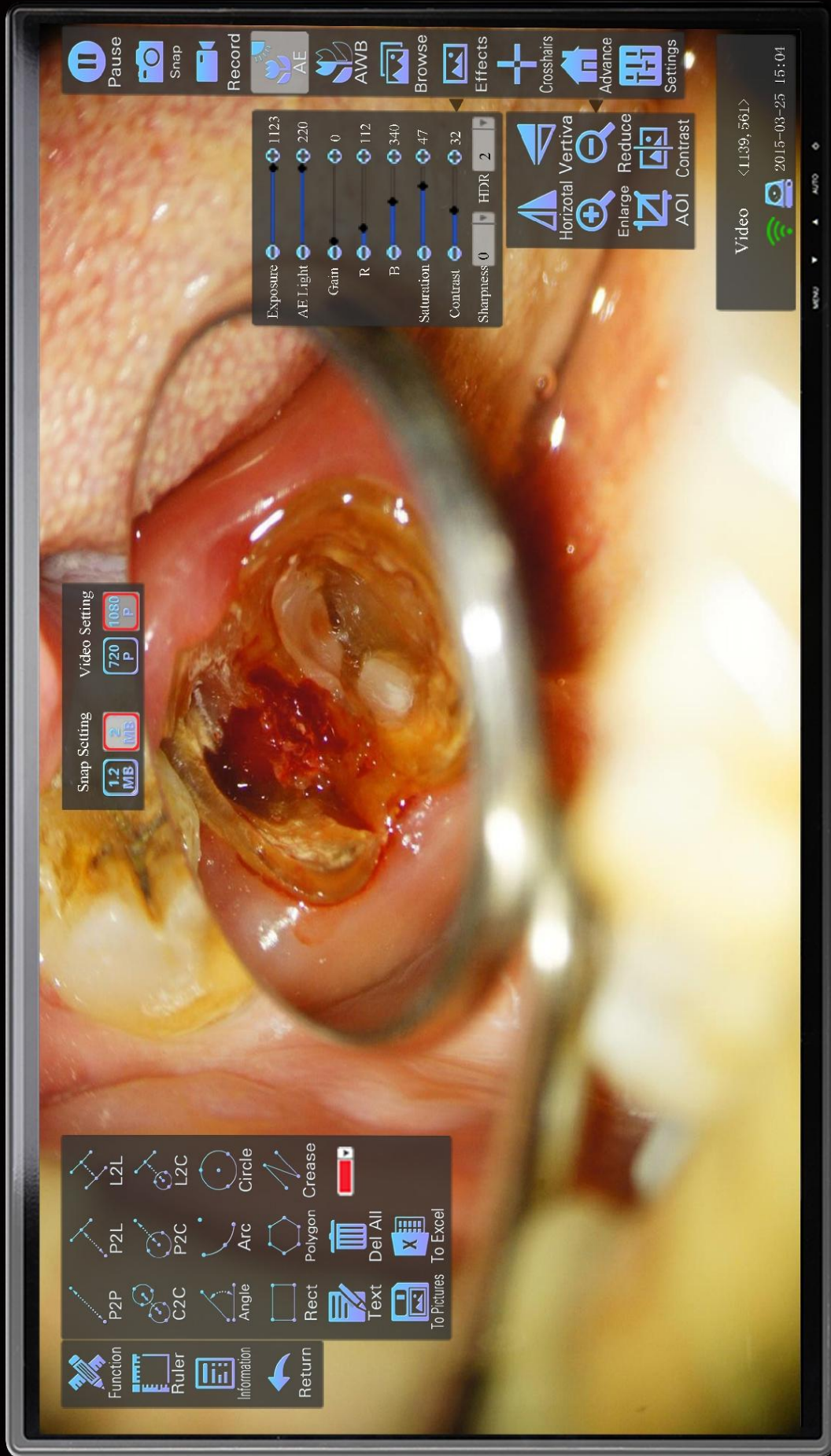
Few cameras include a foot pedal or remote control to take photos and/or record videos. It is very difficult to operate the camera for photography and/or video recording during surgical examination and operation. As a result, photos and videos taken by directly pressing the keys on the camera may be unclear due to vibration of the surgical microscope or colposcope.

The power and video cables of traditional cameras frequently hang below surgical microscopes and /or colposcopes, which are difficult to clean and make the operating room or clinic look messy.

Now, ALLTION ALL-CAM2 FULL FUNCTION CAMERA combines the functions of a beam splitter, camera adapter and three types of camera, in addition to the optional wireless foot pedal for photography and video recording, to provide a one-stop solution for your problems. You can easily upgrade your two parallel beam paths type surgical microscope and colposcope!

A close-up photograph of a microscope's eyepiece and camera attachment. The camera is a grey, rectangular unit with the brand name 'ALLTION' and 'ALL-CAM 2 Full Function Camera' printed on its side. The microscope body is also grey, and a black ring with the number '75' is visible near the eyepiece. The background is dark, highlighting the metallic and plastic components of the instrument.

**ALLTION**  
**ALL-CAM 2**  
*Full Function Camera*



Picture on the screen by courtesy of Mr. Nobuo Masaka, Japanese Society for Adhesive dentistry, Fellow




## ALLTION ALL-CAM2 FULL FUNCTION CAMERA can bring you the following benefits:

ALL-CAM2 integrates the functions of beam splitter, camera adapter and camera. Therefore, it has small volume (155mm X 110mm X 60mm) and is light weight (0.7KGS; less than half the weight and volume of traditional beam splitter + camera adapter + camera).

ALL-CAM2 is designed specifically for surgical microscopes and colposcopes and it has the same as a traditional camera, with the added benefit of more advanced features:

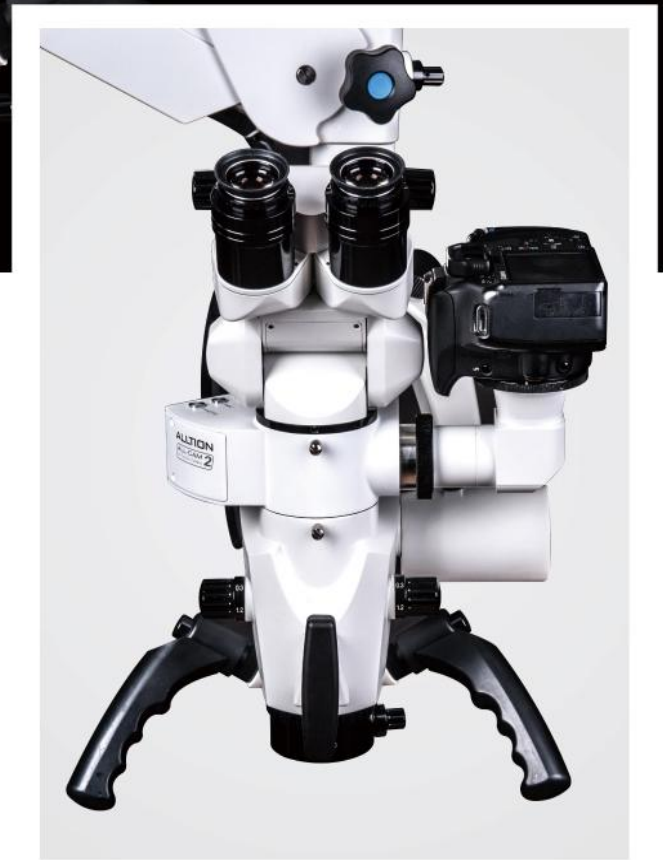
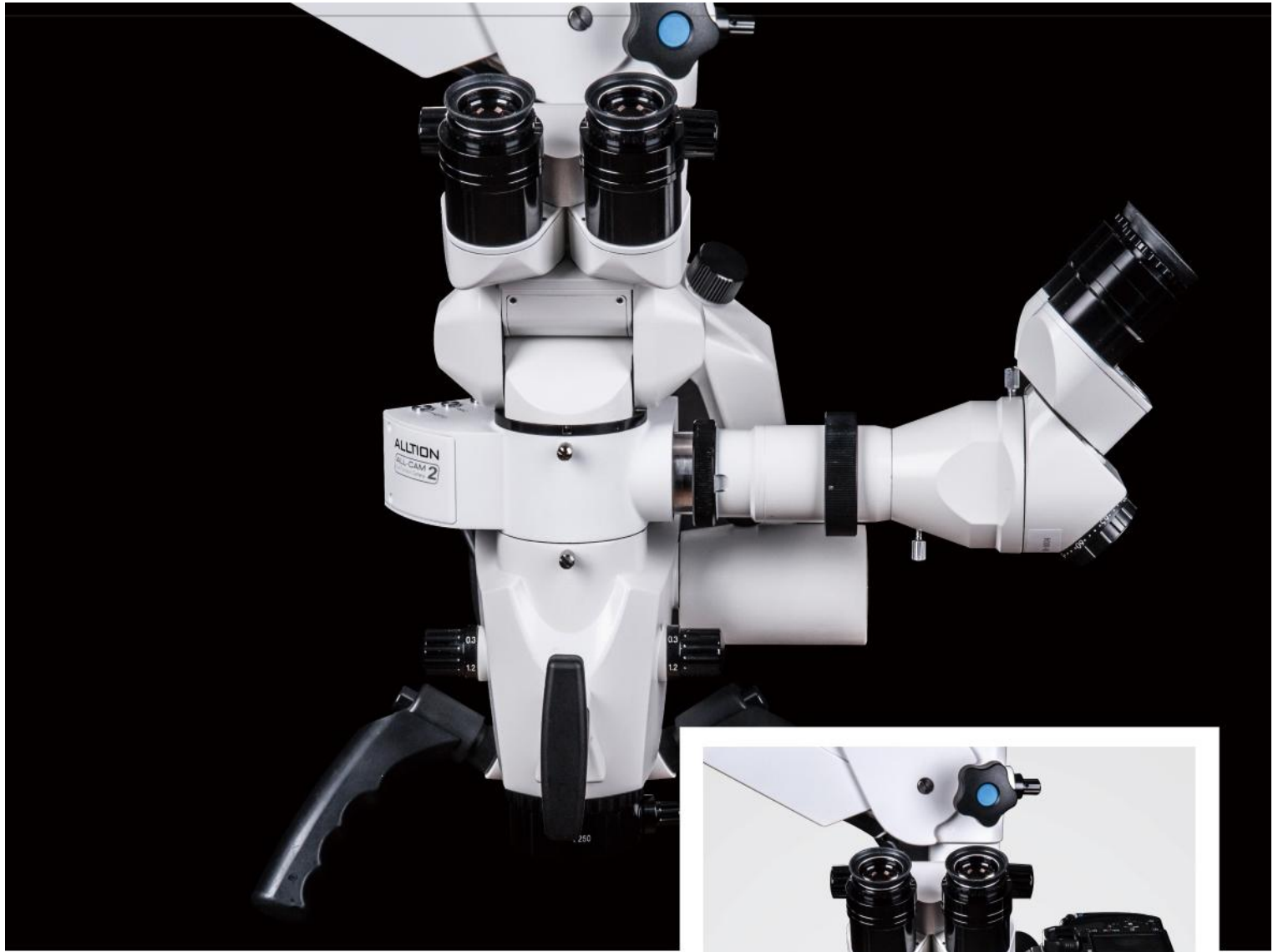
- ◆ It applies SONY industrial grade light-sensitive chips, with high resolution, high sensitivity, low noise point and excellent color restoration;
- ◆ It is specifically designed for the white balance and automatic exposure, optimization algorithm of strong light exposure for surgical microscopes and colposcopes, producing significantly better images than traditional camera systems;
- ◆ It has the functions of real-time video output, photography, video recording and image freezing. A doctor can use the function of image freezing to present the state of an illness for patients at any time so as to make it convenient for doctor-patient communication;
- ◆ With a built-in 32G SD memory card, it can continuously record for about 10 hours. It can also connect to an external memory through USB interface;
- ◆ ALL-CAM2 is an intelligent mini workstation that integrates almost all functions that you may use during your work:
  - 1、 Parameters, including color and definition of camera, can be set by the user;
  - 2、 Pictures before and after treatment can be compared;
  - 3、 Images can be turned upside down and turned to the left or right;
  - 4、 It can precisely measure the size of a lesion and store data;
  - 5、 Cross curve can be displayed on the screen;
  - 6、 Partially enlarged image;
  - 7、 More functions are available for use.

ALL-CAM2 has many operation modes.

	Mouse + TV	Computer / Laptop	Android Mobile	Camera Button	Wireless Foot Control Panel
Function					
real-time video	✓	✓	✓		
Photography	✓	✓		✓	✓
Video	✓	✓		✓	✓
Freeze	✓	✓		✓	
Setting	✓	✓			
Photograph and Video Export	✓	✓			

- ◆ With its WIFI function, ALL-CAM2 can transmit videos to computers and Android mobile phones. Photographing, video recording and the settings of the camera parameters can be conducted on computers.
- ◆ Through optional wireless foot pedal remote control or hand-held remote control, you can realize photographing and video recording without the interruption of operation, avoiding unclear pictures caused by shaking;
- ◆ Through optional wireless video sender, you can conveniently and wirelessly transmit high-definition video to a television or monitor leaving your operation room or clinic more orderly and streamlined.

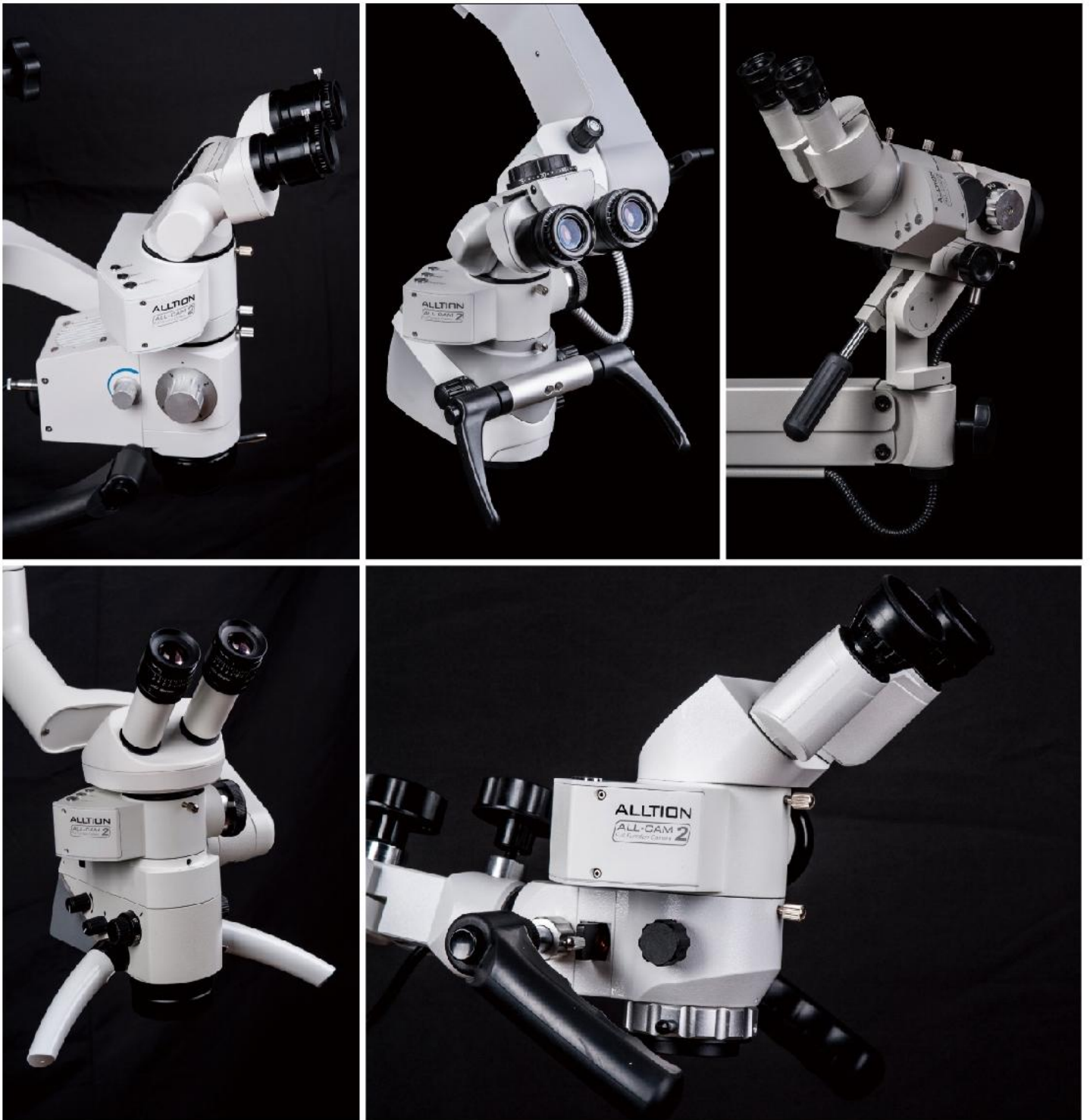




ALL-CAM2 can also be used as beam splitter to connect an assistant scope. It can also connect other cameras through a camera adapter.

ALL-CAM2 is simple to install. It can be installed onto a microscope like a beam splitter, without the need of installing camera adapter and camera.





With various types of surgical microscope and colposcope adapters, ALL-CAM2 can be adapted to the main surgical microscopes and colposcopes all over the world. Adapters can also be customized for customers.



Cracks

Crown Preparation

Dentin Variation



Milk teeth

Prox. Decays

Sealant

Above pictures by courtesy of Dr. Denis Honegger in Versoix, Switzerland

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Above pictures by courtesy of Dr. Hendrik Heinzelmann in Bad Gersfeld, Germany

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Above pictures by courtesy of Dr. Vladislav Pavlov in St. Petersburg, Russia

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More pictures and recorded videos are available upon request.








## Wireless foot control panel

- Full- aluminum alloy body, beautiful and durable
- Powered by 4 (AA) batteries, long battery life, over 10,000 frequency of use
- IPX6 water-proof design
- 2.4G Hz transmitting frequency, in accordance with global regulations






# Configuration Table

## Standard Configuration

No.	Schematic Diagram	Component Name
1		ALL-CAM2 full function camera
2		5V power adapter
3		Power cord, UL plug or European plug. 1.8 meters
4		HDMI video cable, 5 meters
5		Wireless mouse
6		Wireless network card
7		USB flash disk

## Optional

No.	Schematic Diagram	Accessory Name
1		FS-1 wireless foot control panel
2		Wireless video sender
3		One-to-two power cord ( only used on wireless video sender)

# Technical Data

## Main Data

Weight	0.7kg
Size	155*110*60 (MM)
Sensor	1/2" SONY high-sensitivity and low-noise CMOS
Resolution	HD1080P 60FPS (16:9)
Storage	Built-in 32G SD memory space. USB flash disk can be connected externally
Data Format	Picture: JPG format; Video: MP4 format
WIFI	With the function of external WIFI, it can transmit images
Voltage	5V
Power	6.5W-9W
Beam Split Ratio	2:8
Video Resolution	1080P,720P
Picture Resolution	2M
Basic Function	Freeze, photograph, video recording, automatic exposure, white balance, play back and cross curve
Image Effect	Exposure value, best brightness, gain, red gain, blue gain, saturability, contrast ratio, definition and HDR
Advanced Functions	Horizontal flip, vertical flip, zoom out, zoom in, AOI and image comparison
System Settings	Internal/external storage, automatic/autonomous naming, Chinese/English, show/hide rulers, system update, factory reset, export and version information
PC Client	WINDOW XP, WIN7, WIN8 and WIN10
Mobile Client	Android system

## Mechanical and Optical Data

It is installed between binocular head and microscope body through standard dovetail adapter. Standard adapter of other brands can be customized	
Beam Split Ration	2:8 for standard, 5:5 for option. Adapter dia. $\Phi$ 34mm

## Electrical Adapter

DC 5V/2.6A
1 HD adapter HDMI1.3, standard A type
3 USB2.0 adapter
Wireless remote control, with the frequency of 2.4G

## Switch

Power switch, with green indicator
Wireless remote control pinhole matching switch

ALLTION Generation I dental and ENT YSX series surgical microscope was launched in 1984



ALLTION Generation II dental and ENT AM-P6000 series surgical microscope (2003-2012)



ALLTION Generation III dental and ENT AM-3000 series surgical microscope (2003-now)



ALLTION Generation III dental and ENT AM-4000 series surgical microscope (2009-now)



ALLTION Generation III compact dental and ENT AM-P8000 series surgical microscope (2011-now)



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