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zumax



5 ZHIYING STREET, SUZHOU NEW DISTRICT,  
SUZHOU, JIANGSU, CHINA 215129,P.R.CHINA  
PHONE: +86 512 66650502  
FAX: +86 512 66909655  
E-MAIL: SALES@ZUMAXMEDICAL.COM  
HTTP://WWW.ZUMAXMEDICAL.COM

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OMS3500  
SURGICAL MICROSCOPE

# OMS3500



FreeMov® Electromagnetic Lock Control System  
Suspension Movement and Quick Locking

MICRO 4K-3D to assist surgeries,  
teaching, and scientific research.

Auto focus button

Integrated VarioDist long-range electric zoom  
objective lens  
F=200mm-600mm

**OMS3500** High-Quality Optics and ergonomic design offering  
surgeons a clear, precise and comfortable experience.





Excellent Optical Quality

High-quality optical performance with ergonomic, compact design for improved clarity, comfort, durability, and smart functionality.



The VarioDist® long-range electric zoom objective

Long-range electric zoom objective (200–600mm) for Neuro-Spinal and Orthopedic surgeries requiring more operational space.



Option 1: MagPlus1.5 x Magnification binocular eyepiece

One-Click magnification binocular eyepiece, instant 1.5x increase, and larger initial view for convenience.

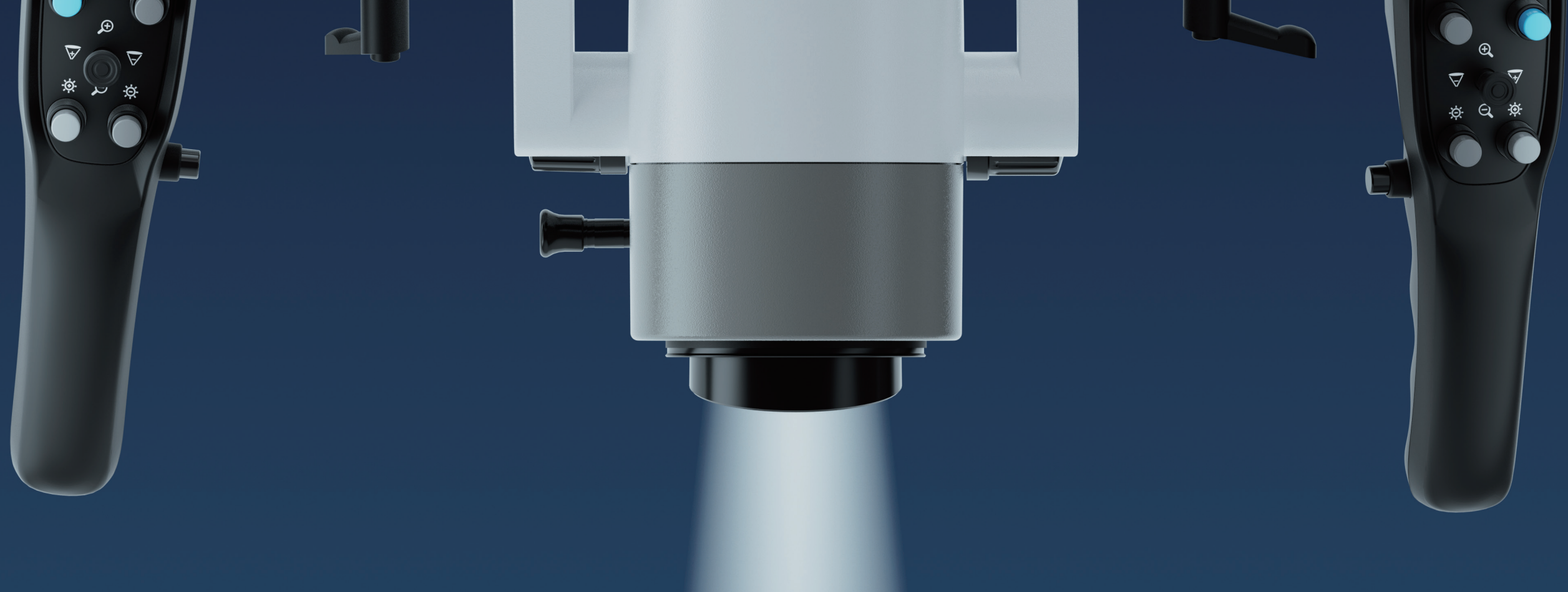
Option 2: Magnifiers2.5 x

ZUMAX magnifiers seamlessly integrate with microscopes. Achieving a magnification effect of over 40x during surgery significantly enhances the precision and safety of the procedure.



|                              | BINOCULAR EYEPIECE | MagPlus1.5™ BINOCULAR EYEPIECE | MAGNIFIERS2.5 X |
|------------------------------|--------------------|--------------------------------|-----------------|
| MAGNIFICATION FACTOR         | 0.4x~2.4x          | 0.4x~2.4x                      | 0.4x~2.4x       |
| MAGNIFICATION                | 1.8x~20x           | 2.7x~29x                       | 3.2x~46x        |
| FIELD OF VIEW DIAMETERS (MM) | 124~11.6           | 82.5~7.7                       | 66.2~4.8        |





## BriPlus™ Adaptive LED Lighting System

### Integrated TruLED™ Lighting System:

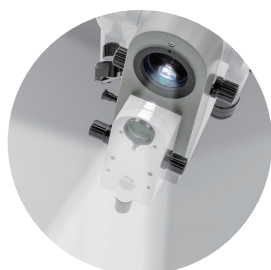
CRI>90, Illuminance>100000Lux, Color Temperature 5500K

### BriPlus™ Enhanced Lighting System:

The brightness of the illumination and the magnification are linked. When the magnification is at its highest, the light spot is smallest, and when the magnification is at its lowest, the light spot is largest. At maximum magnification, the illumination intensity is automatically increased by 30%, providing more light.

### BiLED™ Lighting:

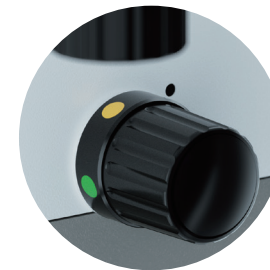
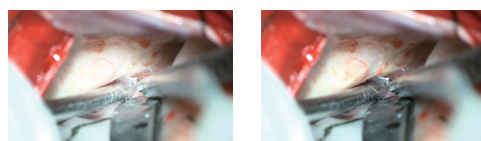
Built-in backup LED light source



## Secondary Lighting (optional)

The illuminance is higher than 200,000 Lux at 250mm working distance.

## Anti Reflect Module

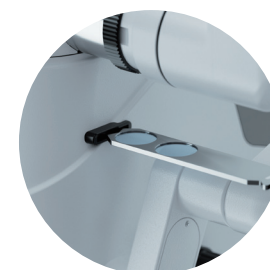


## Filters

In addition to the two color filter of yellow and green, it is equipped with four pattern lighting range selector to reduce the burden to the eyes of the user.

Yellow filter: Prevents premature curing of composite.

Green filter: Improves detail visibility by enhancing the (Red free) contrast of tissue with a strong blood supply.



## Integrated Laser Filters (optional)

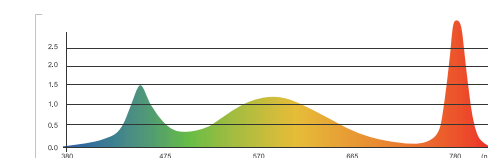
Argon:488~514nm

Diode 980nm

Diode:660nm

& NdYag 1064nm

Diode:800~830nm





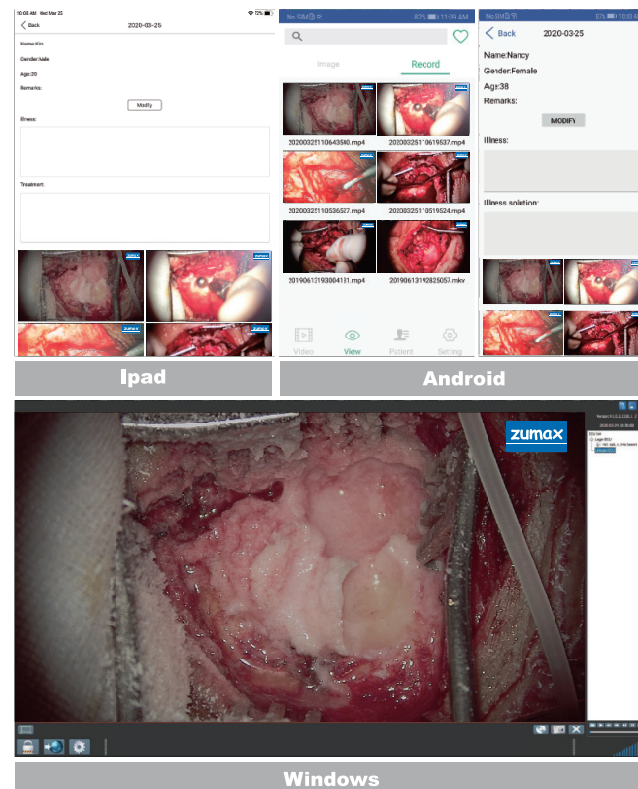
# IMAGE OUTPUT & RECORDING

## Built-in Ultra HD 4K Imaging System

The microscope is equipped with a real-time Ultra HD 4K imaging output system, with an output resolution of up to 3840\*2160, and features an autofocus function.

## iMovCloud Images Management (optional)

The iMovCloud system has Single version, Intranet version and iCloud version. IMovCloud Single version is an advanced and fully integrated surgical image management system which is based on Windows platform. It is an ideal choice for worldwide dental clinics. Together with Zumax microscope to collect videos and images, integrate four major management functions of clinics, doctors, patients and medical records to realize the sorting, analysis and documentation "Intranet version" service, which realize local network viewing, maintenance, management easily, is coming soon "Cloud version" service, which realize cloud viewing, cloud maintenance, cloud management, remote joint inspection and other functions.







### MICRO 4K-3D (Optional)

Dual Build-in 4K Cameras with Ultra-High-Resolution. Delivering real-time, true-to-life intraoperative images with high color fidelity and sharp boundaries. This enables the surgical team to immersive observe procedures and collaborate efficiently, effectively supporting clinical training and research applications. Recorded 3D video in a SD card, can be viewed on 3D TV, 3D projectors and VR/AR viewers.



# OPERATION SYSTEM

## ■ MULTIFUNCTIONAL HANDGRIP, FOOT PANNEL



### Multi-functional Handgrips:

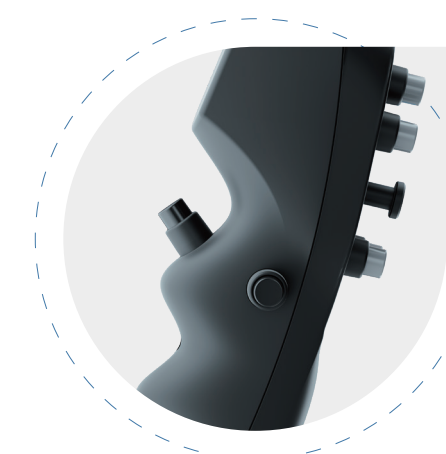
Ergonomic Handgrips can control zoom, focus, brightness as well as photo & video recording electronically by button clicking.



### 12-Function Wire/Wireless Foot Panel:

Hands-Free to control zoom, focus, brightness as well as photo & video recording.

## ■ FREEMOV® ELECTROMAGNETIC SYSTEM

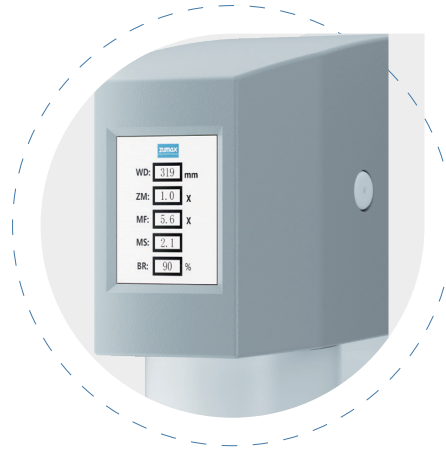


### 6-Axis Magnetic Brakes:

The magnetic brakes provide easy and precise positioning of the microscope. Just press the buttons to release handbrakes and bring the microscope to the required position.

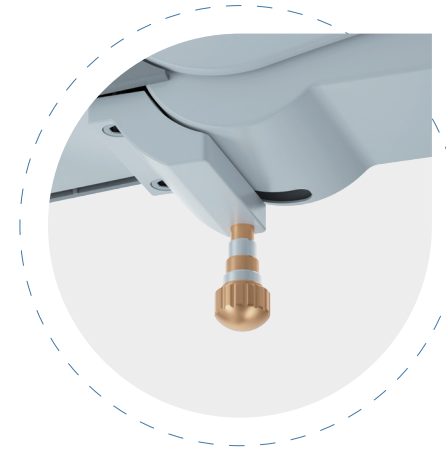


## ■ VISUALIZATION OF OPERATIONS



### SmartMon LCD Display:

WD: Working Distance ZM: Zoom Factor  
MF: Magnification MS: Measurement Factor  
BR: Brightness



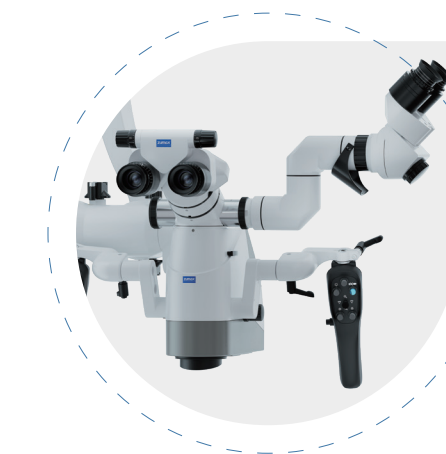
### Working Distance Limit Bolt:

The second arm with working distance limit bolt and memorable working range adjustment for quick adjustment of working distance to position for surgery in different departments.

## ■ STEREO ASSISTANT SCOPE (OPTIONAL)



Connect DualFace Bridge and 180 deg inclinable binocular.



Connect the beam splitter and stereo observation tube and 180 deg inclinable binocular.



# CONFIGURATIONS

|  |   |
|--|---|
| MAGNIFICATION FACTOR                                       | 0.4x-2.4x   |
| WORKING DISTANCE   | Variable focal length objective lens have a working distance variation range of 200 mm ~ 600 mm.                  |
| BINOCULAR TUBES  | 0° -190° wide-angle   |
|  | Optional MagPlus 1.5 with a 0° -190° adjustable binocular tube  |
|  | 12.5x wide-angle eyepieces  |
|  |   |
| RANGE OF PD ADJUSTMENT                                     | 55 mm ~ 75 mm   |
| ILLUMINATION   | Maximum illumination not less than 100000 lx when objective lens working distance of 200 mm                       |
| ILLUMINATION (WITH OPTIONAL SECONDARY ILLUMINATION MODULE) | The Secondary illumination (optional) reaches at least 150,000 lx at a working distance of 300 mm                 |
| SPOT DIAMETER  | Φ85-215 mm  |
| FIELD OF VIEW DIAMETER                                     | Φ12.1-165.6 mm  |
| CONTROL SYSTEM   | FreeMov® electric zoom system   |
|  | MFH multifunctional control handle for focus, lighting, and photography   |
|  | SmartMon LCD showing current working distance, magnification, LED brightness                                      |
| BUILT-IN 4K IMAGING  | Ultra HD 4K real-time capture, resolution 3840x2160   |
|  | USB3.0, HDMI+DVI dual screen output   |
|  | One-Click Autofocus   |
| BUILT-IN MICRO 4K-3D IMAGING SYSTEM (OPTIONAL)             | Built-in dual Ultra HD 4K real-time video output system integrated with a 3D beam splitter prism system           |
|  | Dual USB 3.0 for image/video storage; supports JPEG and MP4 formats. HDMI + DVI dual-port video output            |
|  | Supports 3D stereoscopic video output and 2D video output   |
|  | One-Click Autofocus, Voice control module   |
| IMOVLOUD (OPTIONAL)  | Cloud workstation system, app support for Windows, macOS, iOS, and Android, remote control and video transmission |
| LASER LIGHT SOURCE(OPTIONAL)                               | Optional modules for wavelengths 458-514 nm, 660 nm, 800-830 nm, 980 nm & 1064 nm                                 |
| LIGHT CIRCLES  | Large, medium, small light circles  |
| MAX WEIGHT   | 14 kg including equipment and accessories   |
| STANDS   | Vertical column stand, suspension stand   |
| ARMS   | Small arm length ≥850 mm, with rotation ranges large then 300°  |
|  | large arm length ≥500 mm, with rotation ranges 360°   |

