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OMS6000
DIGITAL MICROSCOPE

REVOLUTIONARY DIGITAL MICROSCOPE



REVOLUTIONARY INTEGRATION

The OMS6000 seamlessly integrates with advanced digital display technologies. It shifts 4K3D microscopy **from "Clear" to "Real."** Dentists can now enjoy a fully immersive, stereoscopic view with digital displays for enhanced precision and realism. for enhanced precision and realism.

TRANSFORMING WORKFLOWS

The OMS6000 redefines ergonomics. It enables 360° lesion observation and **unlocks challenging surgical angles**, enhancing precision and efficiency while driving innovation in microsurgery.

IMPROVING DOCTOR-PATIENT INTERACTION & EDUCATION

The digital 4K3D Digital Microscope supports 2D/3D multi-screen displays for seamless doctor-patient communication and teaching. It effortlessly **switches between classic optical and digital optical modes**, offering real-time, in-depth insights through vivid 2D/3D imaging

Traditional dental microscopes, with their fixed optics and poor ergonomics, often lead to shoulder, neck, and eye strain during prolonged use. Their narrow field of view also limits surgical efficiency and teaching. To address these issues, after three years of R&D and clinical trials, the OMS6000 Digital Microscope is **delivering a more comfortable and efficient experience for micro-dentists.**



SMARTMON LCD DISPLAY

Displays real-time parameters such as working distance, magnification, total magnification, scale factor, and brightness, facilitating communication between the doctor and assistant.



- A.Auto-Focus
- B. Lighting Switch
- C.Function Handle
- D.Brightness +
- E.Brightness -
- F. Photo/Video
- G.Electromagnetic Lock
- H.Electric fine-tuning
- I. Adjustment of balancing arm switching speed
- J.Short press to record the current focal length position Long press to adjust the lens focal length to the previously recorded state

ELECTROMAGNETIC LOCK SYSTEM



The **seven electromagnetic lock** support (with multi-axis rotation and lifting capabilities) features dual handle buttons for precise joint control, allowing rapid and effortless position adjustments.

ELECTROMAGNETIC LOCK SYSTEM

Press the handle button to unlock the system, enabling smooth, free movement of the Exoscope head. Release to lock all joints instantly.

FREE SUSPENSION + ELECTRIC BALANCE SYSTEM

The electromagnetic lock enables free suspension and balance. Adjust the stand's balance coefficient electrically based on lens load, delivering a seamless, zero-gravity operation experience.

SMART ELECTRIC FINE-TUNING FOR PRECISION DENTISTRY

The Exoscope features front-back and left-right fine-tuning controls, enabling precise focus on the surgical area. Advanced positioning technology minimizes repeated adjustments, boosting surgical efficiency.

The third arm design allows for easy positioning of the surgical area, precisely reaching the working site.

left-right tuning front-back tuning

NAKED EYE 4K3D IMAGING SYSTEM

LEADING MEDICAL-GRADE 3D DISPLAY 

FPGA Core Algorithm Technology

Integrated 3D image processing chip reduces reliance on external computing power, minimizing PC performance requirements and delivering **real-time, lag-free 3D imaging**.

32-inch 4K3D Ultra-HD Display

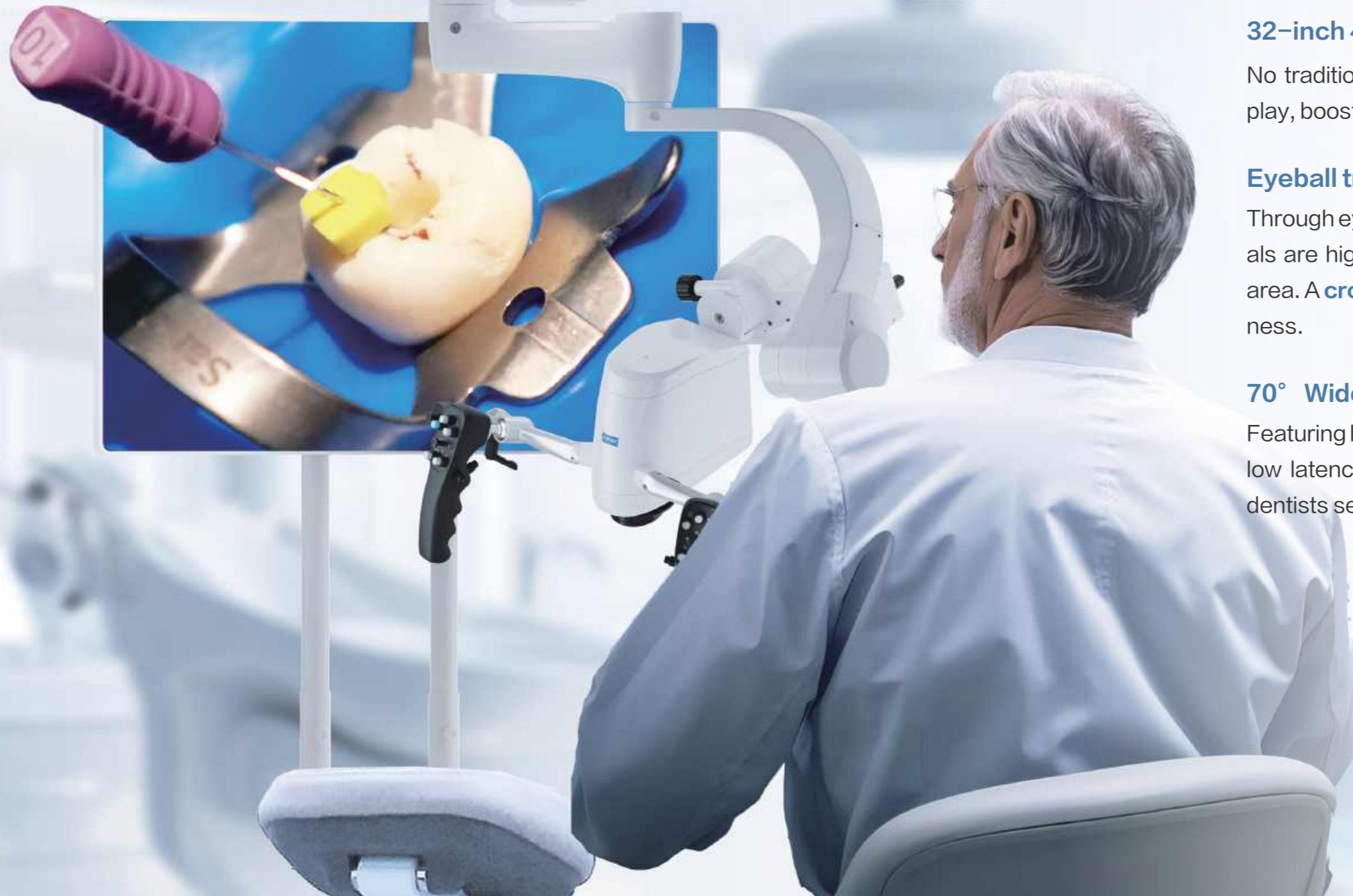
No traditional 3D glasses: authentic depth, high-quality 3D display, boosts surgical efficiency.

Eyeball tracking technology

Through eye-interlaced imaging technology, the surgical 3D visuals are highly realistic and vivid, with no ghosting in the reversal area. A **crosstalk rate of less than 3%** effectively prevents dizziness.

70° Wide Field of View

Featuring high refresh rates, low blue light, flicker-free display, and low latency, it reduces eye strain. Vibrant, lifelike colors ensure dentists see more clearly and precisely during long procedures.



ZuVisionX™ 3D HEADBAND



DSLR-level 3D Experience

Breakthrough traditional screen limitations, achieve **ghosting-free, zero distortion, and anti-reflective** professional-grade medical stereoscopic imaging through full HD resolution (1920x1080x2) and dual MicroOLED optical modules, significantly improving surgical efficiency.

Intelligent Dynamic Safety Design

Open design, supports **58-74mm** PD adjustment, diopter adjustable (mild myopia users can use without glasses), low latency synchronized head movement, alleviates cervical pressure.

Perfect Integration of Internal and External Vision

Compact body, within the field of view under the lens, simultaneously see the external space of the surgical area, **minimal visual obstruction**, seamless interaction and communication between doctors and patients, and medical staff.

Ergonomic and All-day Wear Design

Lightweight integrated body, total weight **less than 200g**, head-worn design disperses pressure, no nose bridge pressure; friendly for myopic surgeons, compatible with frame glasses, no need to frequently remove glasses; low blue light certified, reduces the risk of visual fatigue, supports long-term continuous use during surgery.



ZuVisionX™ 3D VISIONMOUNT

Innovative Human–Machine Interaction

The wireless, detachable eyepieces allow freely adjust its position, eliminating dependence on the eyepiece tube. This enables real-time observation of high-definition, high-contrast true 4K 3D images under the lens. Reducing the learning curve and allows for quick adaptation.

Cinematic 3D Imaging

Delivers an immersive and intuitive operating experience with a single-eye resolution of **2.5K (2560x1440x2)**. The professional-grade medical stereoscopic imaging is free of ghosting, distortion, and glare, significantly enhancing surgical efficiency.

Ergonomic Design

Designed with nearsighted surgeons in mind, it eliminates the need for frequent glasses removal and simplifies the process of adjusting the PD.



TECHNICAL SPECIFICATION

Basic Configuration

Magnification System	Continuous Magnification 0.4x~2.4x
	Total Magnification 4x~53x @ 32inch monitor
	2x~26x @ 15.6 inch monitor 7x~92x @ 55 inch monitor
Field of View Diameter	13.2mm-185.2mm
Working Distance	200-600mm
BriPlus™ Lighting System	LED Color Temperature 5700K, CRI>90, Illuminance > 100,000 Lux
	Yellow Filter, Green Filter
	Spot diameter (85mm-215mm)
Control System	Multifunction Handle:locking/unlocking the electromagnetic lock, zoom in/out, Electric focus in/out, Taking photos/videos, Lighting adjustment +/-
	SmartMon LCD Display: Displays real time working distance, Zoom ratio, Magnification, Measurement coefficient, LED brightness
Arms	Arms extension range >1300mm
	First arm length ≥500mm, rotation angle: 360°
	Second arm length ≥800mm, rotation angle: ± 150° , vertical movement ± 300mm
	Third arm length ≥250mm
	The first arm is located above the second arm
Intergrated 4K Imaging System (low latency)	Built-in 4K camera, resolution 3840x2160
	Dual USB 3.0 Image Storage:
	Picture and video recording formats: JPEG, MP4
	HDMI+12G-SDI Dual output (HDMI2.0*3+HDMI1.4*1+12G-SDI*1)
	Auto Focus + Voice Control

Optional Accessories

FluoDet™ Fluorescence Module	For detecting caries and removing excess resin materials.
iMovCloud Workstation	Enables digital storage and editing of dynamic & static images Case management, sharing, and review Provides efficient imaging solutions for clinicians in clinical, teaching, and research fields
Cross-Platform App (Windows, macOS, iOS, and Android)	Via wireless WIFI or wired RJ45 connection, microscope video streaming can be transmitted to Windows desktop devices and mobile phones

