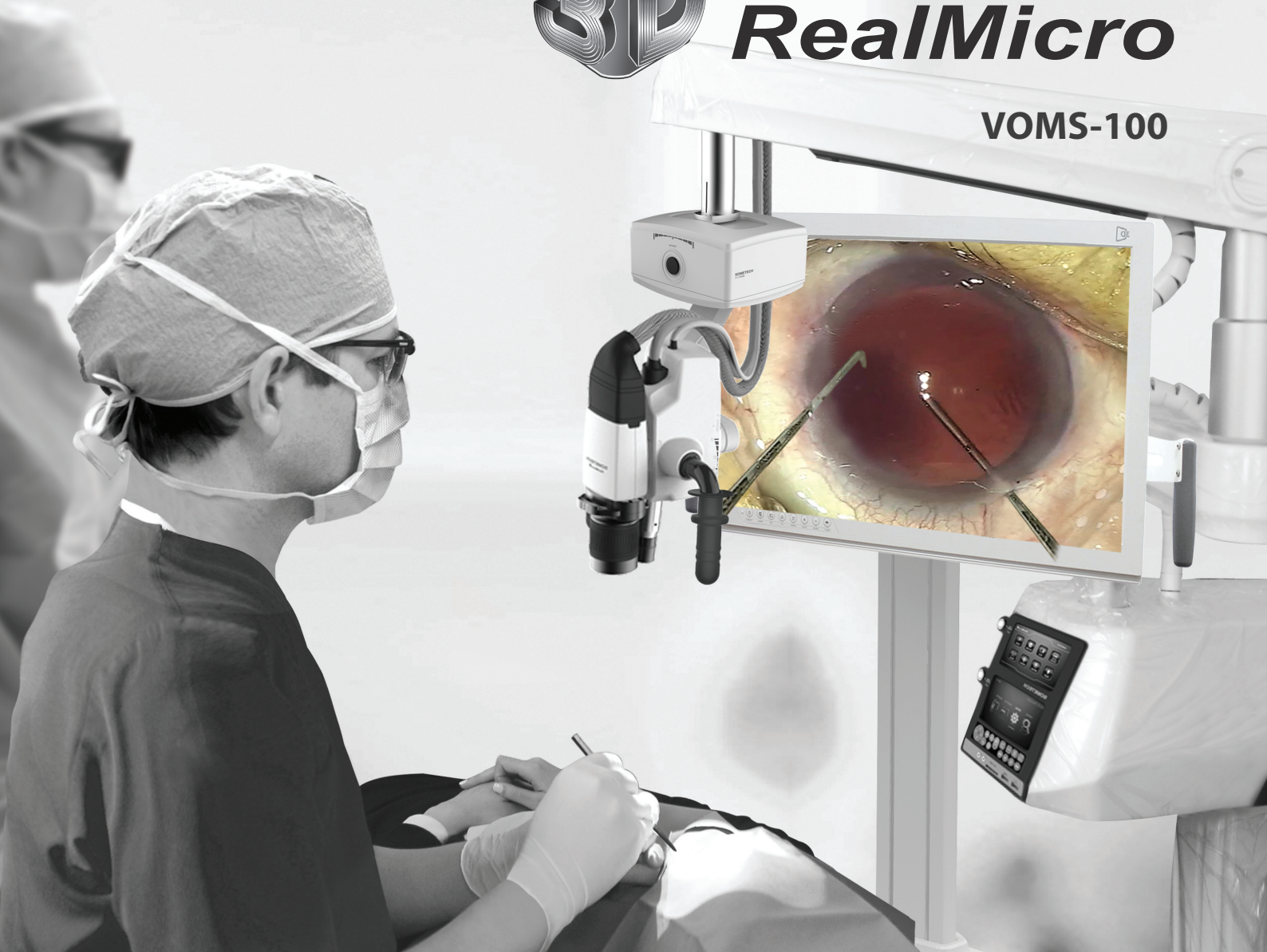




Ophthalmic
Surgical Video Microscope
RealMicro

VOMS-100



Opens up a new era of
ophthalmic surgery with
3D video microscope system

SOMETECH
SINCE 1989

A NEW PARADIGM IN SURGICAL VIDEO MICROSCOPE

Since 1989, Somatech has tirelessly invested in R&D to introduce world class medical equipments. We first introduced 2D medical imaging systems followed by RF surgical devices, laser equipment, endoscopy and 3D laparoscope.

We invented the world's first 3D digital video microscope system and released for ophthalmic surgeries.

3D RealMicro VOMS-100 with its unique patented technologies offers comfortable, safe, and precise surgical environment.

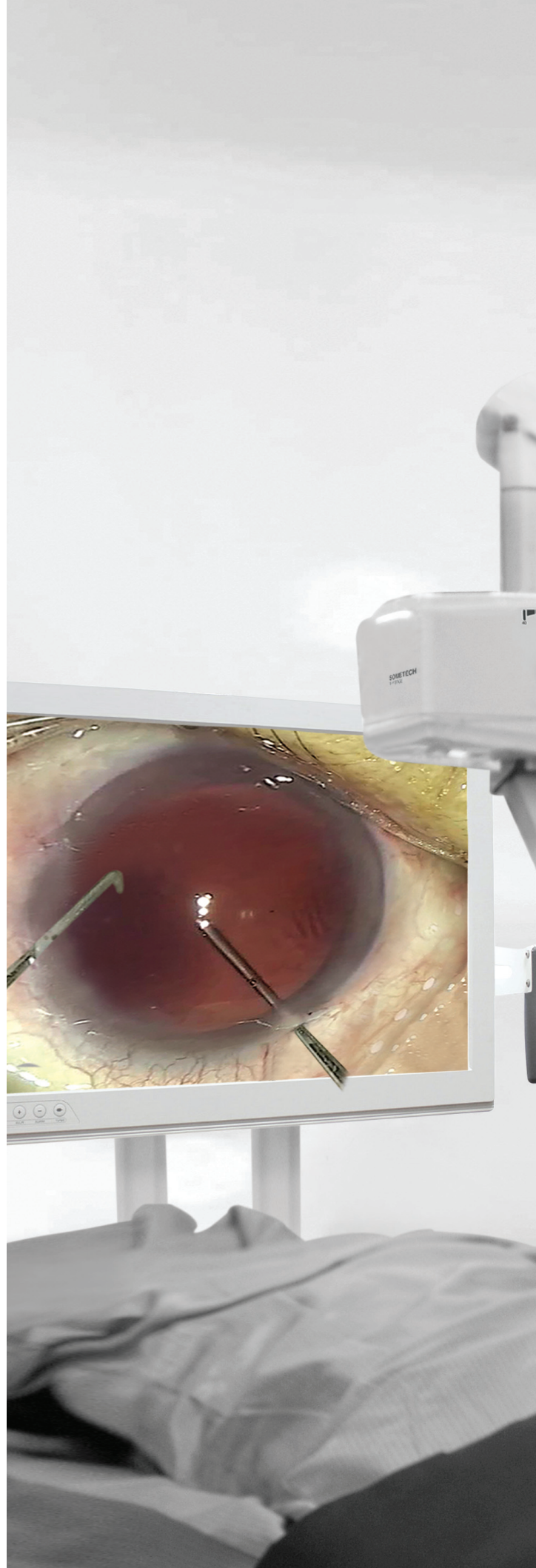
Come and discover the world of perfect full 3D image in high definition.

Our patented new concept of head up display provides

- Relief from neck, back pain, eye strain and headache
- Shorter and more precise surgery with 3D image in full HD
- Compact design offers more workable space in the operating room
- Motorized X, Y, Z axis micro movement

Applications

Cataract / Cornea / Glaucoma / Retina / Ocular Plasty



“ Surgeons can perform safer and more precise
ophthalmic surgeries without neck & back pain ”





Safer and more precise surgery

Sufficient depth of focus, high contrast, and true color 3D image enable safer and more precise surgery. Also with the help of UV filter on the light source and auto exposure function, minimal illumination is exposed to both surgeons and patients.

Neck & back pain free

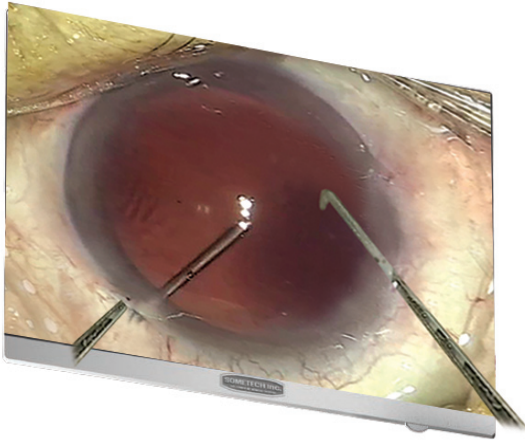
Surgeon's head up posture will be maintained throughout whole surgery by watching the 3D monitor, providing freedom from inevitable neck and back pain.

Easy cooperation and education

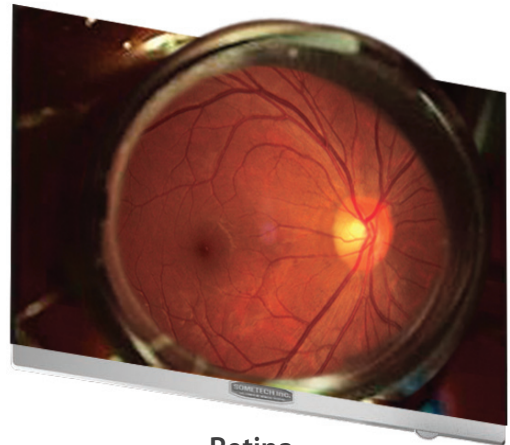
Everyone in the OR cooperates easily and observe every detail of surgery as they watch same real time 3D image together with the surgeon. Captured 3D surgical images can be used for training and education.

Applications

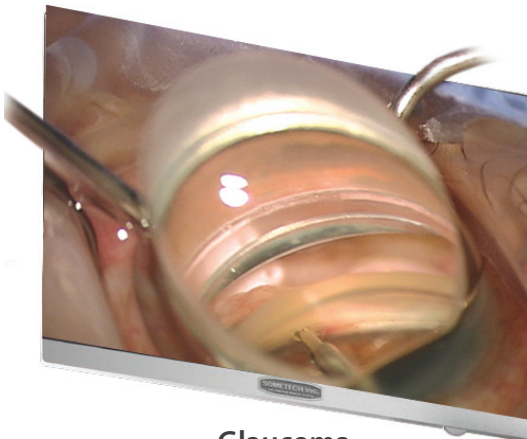
VOMS-100 can be used for various ophthalmic surgeries(Cataract / Retina / Glaucoma / Cornea / Lacrimal gland / Blepharoplasty). It is also uesful for accurate operation, and 3D recording for surgeon trainees.



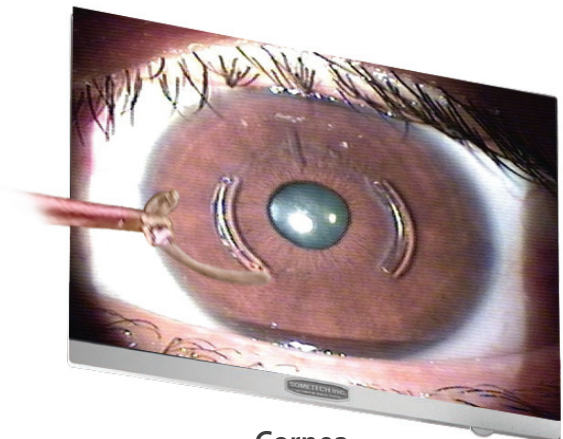
Cataract



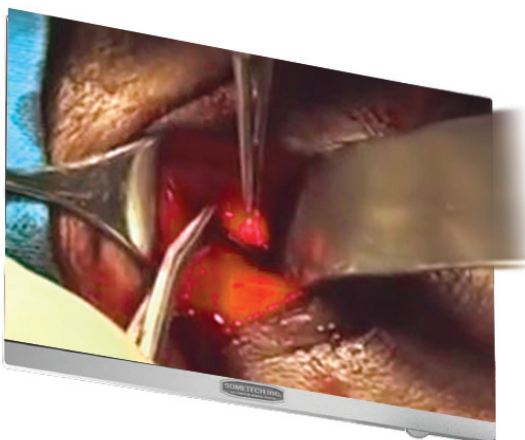
Retina



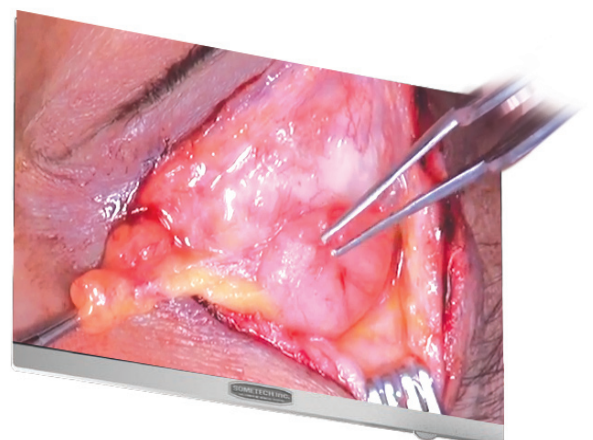
Glaucoma



Cornea



Lacrimal gland

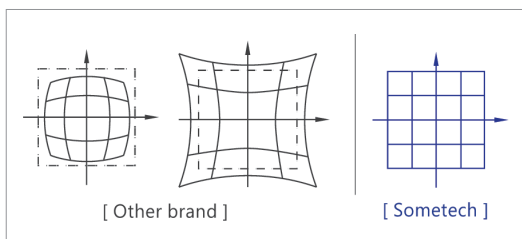


Blepharoplasty



| Comfortable posture of surgeon using new concept digital microscope

Advantages



Distortion free

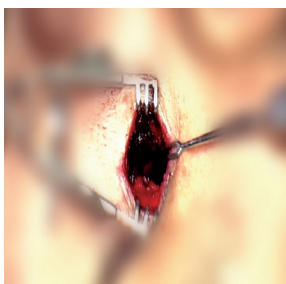
Sometech`s patented lens can minimize the chromatic aberration. Surgeons are relieved from eye strain, dizziness, and headache caused by distortion.



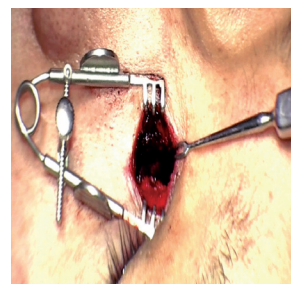
Intuitive GUI

VOMS-100 provides intuitive GUI and built-in recording system. User can set image quality and record by touch screen.

(* Actual image of oculoplastic surgery)



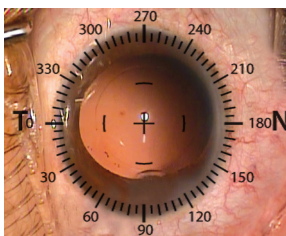
[Eyepiece type]



[Head-up type]

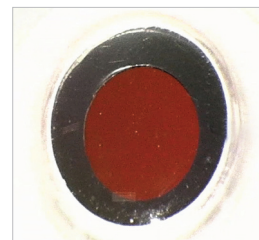
Unparalleled depth of focus and wider field of view

Sometech`s patented image processing technology provides crystal clear images not only for the immediate but also the surrounding area.



Protractor

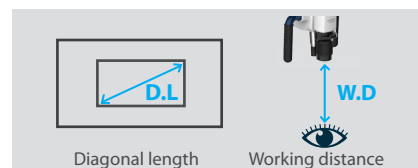
Embedded protractor software helps surgeons position and align for toric IOL, ICRS, LRI and KP more accurately, ensuring optimal correction.



Red reflex

Brilliant red reflex enables easier and safer cataract surgery.

Lens magnification



Distance and monitor size	Lens magnification based on D.L(Diagonal length)					
Diagonal length	20mm	30mm	40mm	50mm	60mm	80mm
Working Distance	W.D : 230mm	W.D : 230mm	W.D : 230mm	W.D : 230mm	W.D : 350mm	W.D : 350mm
26"Monitor	33x	22x	16x	13x	11x	8x
55"Monitor	70x	46x	35x	28x	23x	17x
			Standard	* Magnification can vary by monitor size		

Convenient digital zoom by foot switch

Digital zoom can be operated either by GUI in main unit or foot switch for maximum convenience during surgery.

X,Y,Z axis movement is fully motorized

VOMS-100 adjusts to your needs. With the microscope's touchscreen you can control both the microscope and the video camera. The display is easy to use and can be easily accessed during an operation. VOMS-100, fully motorize movement provides surgeons with greater convenience.

Simultaneous viewing

VOMS-100 can be linked upto 3 additional monitors. This enables assistants and staffs to see the surgical field at the same level of image quality and magnification.

Wireless foot switch

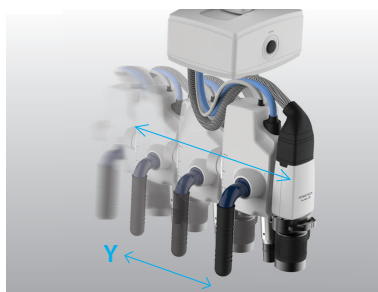
The ergonomically designed wireless foot switch panel enables you to control VOMS-100 precisely.

Compact design for even limited space

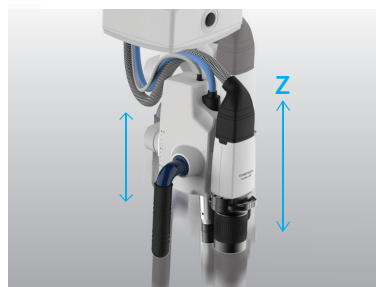
The compact design makes VOMS-100 suitable for smaller operating rooms such as those in local clinics and ASCs (Ambulatory Surgical Centers).



X axis movement



Y axis movement



Z axis movement



Wireless foot switch



Effective training tool for surgeons

Traditional surgical microscope utilizing eyepieces uses beam splitter to share images with less than ideal output quality. VOMS-100 directly transmits 3D full HD images from monitor without degradation in picture quality. Surgeon trainees are able to learn and assist surgeons more effectively.

Options

 Diagonal length Working distance						
VOMS - 100 lens			[Standard]			
	D.L=20mm (W.D:230mm)	D.L=30mm (W.D:230mm)				
			D.L=40mm (W.D:230mm)	D.L=50mm (W.D:230mm)	D.L=60mm (W.D:350mm)	D.L=80mm (W.D:350mm)
Light focusing lens		[Standard]				
						
 ø40 ø60 ø80 ø65 ø105						

Various magnification 3D lenses and light focusing lenses

One microscope lens and matching light focusing lens will be provided in the standard unit. Additional microscope lenses and light focusing lenses are available for optional purchase.

Wide angle viewer

For retinal surgery, wide angle viewer will be available for optional purchase.

Connecting surgeons worldwide in 3D



▲ Capture the 3D surgical contents using 3D microscope.



▲ Capture the 3D surgical contents using 3D laparoscope.



Joint business between hospital and 3DSurgicalonline

VOD

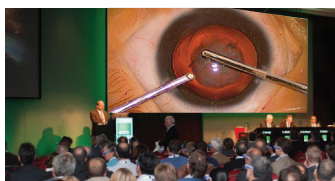


◆ VOD contents

VOD service to watch surgical contents in various applications.



LIVE



◆ Live Surgery

Online broadcasting platform allows streaming of real-time live surgery images to anywhere, anytime in the world.



User group service

GROUP



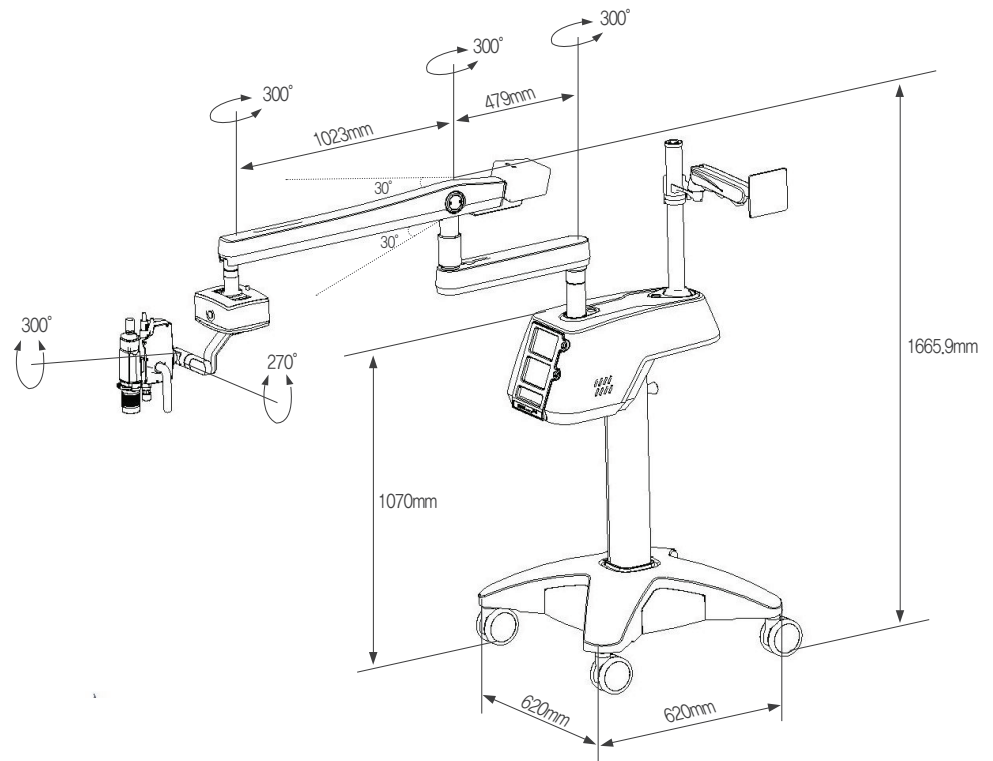
◆ Group

Hospitals, medical schools, surgical societies are supplied with online platform to share information among colleagues, students/faculties, and members for mentoring surgeries, surgical case studies, and online seminars.



Technical Data

3D RealMicro VOMS-100



■ 3D RealMicro VOMS-100

Dimension	300mm(W) x 600mm(D) x 250mm(H)
Weight	75 kg
Power	100-240VAC / 50-60Hz
CCU	Video resolution : FULL-HD(1920x1080), HDMI 3D Muxing format : side by side Binocular digital zoom control: 1.0x~3.0x (Step 0.1x)
Recorder	Still capture method : JPG(1920 x 1080) file extension(.jpg) Video compressing method : MPEG-4/ H.264 file extension(.AVI) External MIC sensitivity -20dB~50dB recommend -23dB(1Khz at 1Pa) Line out(3.5mm diameter jack mono) reference SMPTE 296M/ 274M Media storage : SDHC / USB memory stick
Light source	Side : White LED(cold light) light fiber type built into the unit Intensity : 0(Off)~10(Max), brighter than Xenon 300W light source Life time : about 60,000 hours Coaxial : White LED Coaxial Type with UV cut filter Intensity : Off/On, 410lm (at 1.5A)
X, Y, Z range	X : 80mm, Y : 50mm, Z : 50mm



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