

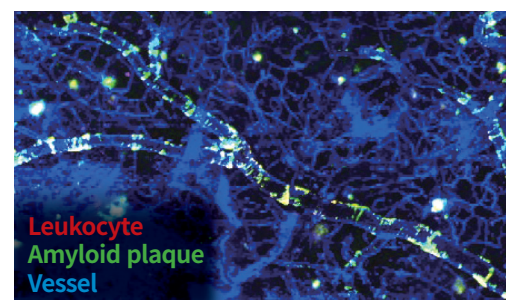
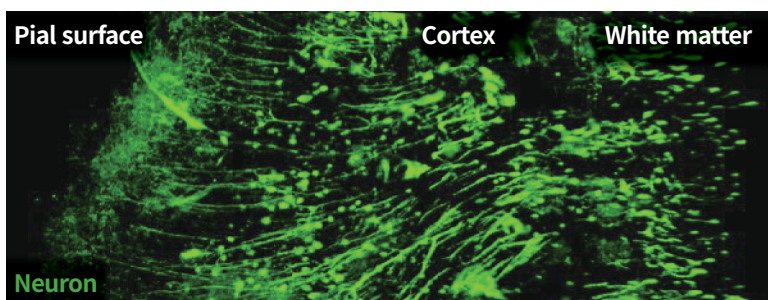
IVM-MS3 (Two-Photon Smart v. 3)

The New All-in-One Intravital Imaging Platform



Cost-Saving, Hands-Free

IVM-MS3 represents the smart evolution of IVM-M3, offering an All-in-One Two-Photon Intravital Microscopy solution optimized for *In Vivo* imaging. This system integrates a compact, high-stability, and maintenance-free fs-pulse laser unit into a single box, streamlining the imaging process. With a fixed wavelength of 920nm, IVM-MS3 excels at imaging deep tissues, making it an ideal choice for researchers with specific targets but limited resources and budget constraints.



Key Features

- Simple and Hands-Free Turn-Key Operation of 920 nm NIR fs-Laser for Deep Tissue Imaging
- Label-free, Non-Linear Second Harmonic Generation Ability
- Fully Integrated *In Vivo* Maintenance Unit / Animal Stage (e.g., Monitoring & Homeostatic Regulation of Animal Vitality)
- Ultra High-Speed Imaging (max. 50 fps – 512 x 512 pixels)
- 4D Animal Motion Compensation (XYZ & Time)

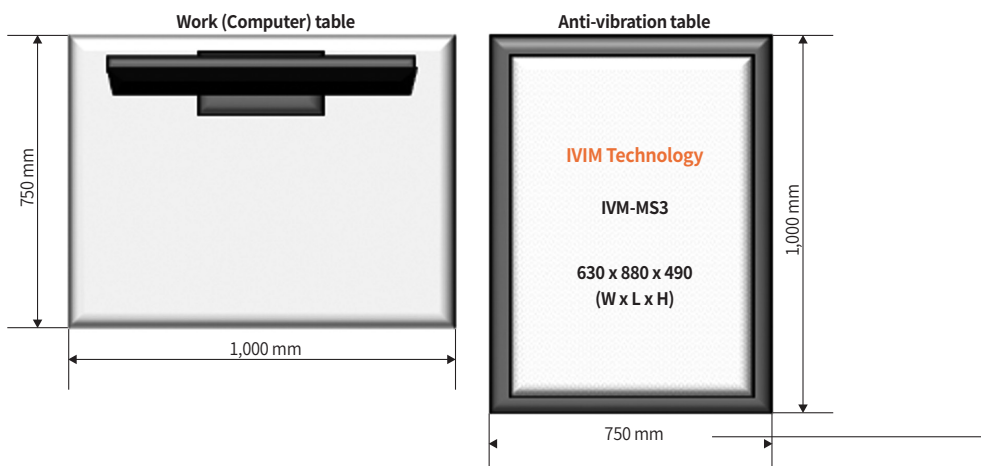
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SPECIFICATIONS

Laser	Compact Two-photon Laser Unit	<ul style="list-style-type: none"> Air-cooled fs-fiber laser system with built-in power control Wavelength: 920 nm, Pulse width < 150 fs, Rep. rate: 80 MHz Avg. power > 0.8 W, Dispersion compensation: 0 to -22,000 fs²
Fluorescence Detector	Two-photon Detector	<ul style="list-style-type: none"> Wavelength: 450 - 750 nm (DAPI, CFP, GFP, YFP, RFP, Cy5, Cy5.5, etc.) 4 high quantum efficiency PMTs (UV to Near IR, Ultra High Sensitivity, Low Dark Current)
	Emission Filter	<ul style="list-style-type: none"> Individual filter can be mounted on each of four detectors
Scan Head	Scanner	<ul style="list-style-type: none"> Polygonal mirror (Fast axis scanning, Max. 66 kHz) Galvano scanner (Slow axis scanning, Max. 200 μs/step)
Imaging Head	Objectives	<ul style="list-style-type: none"> Max. 5 objectives are mountable on IVM Engine Software controlled motorized turret (1X - 100X) Compatible for commercial objectives
Image	FOV	<ul style="list-style-type: none"> 100 x 100 μm² - 10 x 10 mm²
	Pixel Resolution	<ul style="list-style-type: none"> Max. 2,048 x 2,048 pixels
	Imaging Speed	<ul style="list-style-type: none"> Standard: 30 fps @ 512 x 512 pixels (Optional) High Speed: 50 fps @ 512 x 512 pixels
Animal / Sample Stage	Movable Stage	<ul style="list-style-type: none"> Travel Range: 50,000 x 50,000 x 75,000 μm (XYZ) Micromanipulation (Max. 0.2 μm resolution) 3-axis independent control with Jog Dial & IVM Engine software
	Specimen Holder	<ul style="list-style-type: none"> Flexible-design universal <i>in vivo</i> / <i>ex vivo</i> / <i>in vitro</i> specimen holders can be mounted. (Optional) Homeothermic warming system, Holders for window chamber
	Monitoring Camera	<ul style="list-style-type: none"> Real-time live animal / sample monitoring
	LED Light	<ul style="list-style-type: none"> Installed inside the machine to assist in the observation of live animals or samples
Animal Motion Compensation (Tissue stabilization)	4D <i>In vivo</i> Imaging Motion Compensation	<ul style="list-style-type: none"> XY motion compensation: Averaged image acquisition with motion artifact compensation Z motion compensation: Image-based sample Z position adjustment for long-term intravital microscopic imaging & sample tracking (Feedback-loop automatic stage control) T motion compensation: Image-based image XY position adjustment for long-term intravital microscopic imaging & sample tracking (Feedback-loop automatic stage control) Combination of above three compensations for 4D <i>in vivo</i> motion compensation Controllable by IVM Engine software
Accessories Add-on	Live Animal Maintenance Unit	<ul style="list-style-type: none"> Body Temp. Monitoring & Feedback Heater Control, including tablet PC. 4CH Rectal Probe, Body Plate Heater, Thermometer Sensor & Cover Glass Heater
	<i>In vivo</i> Imaging Chamber Sets	<ul style="list-style-type: none"> Dorsal Skinfold Chamber Lung Imaging Chamber Cranial Window Imaging Abdominal Imaging Window Pancreas Imaging Window Mammary Imaging Window Heart Imaging Chamber Uterus Imaging Chamber
	Inhalation Anesthesia System	<ul style="list-style-type: none"> Whole Rodent Animal Inhalation Anesthesia System Anesthesia Mask and Connections for Longitudinal Imaging
	Antibodies / Dyes	<ul style="list-style-type: none"> Fluorescent labeling agents, vascular dyes, and conjugated antibodies
Engine & Studio Software	Image Display	<ul style="list-style-type: none"> Independent 4 single channel display (RGBA channel) Overlay channel display (Selection among RGBA channel)
	<i>In vivo</i> Imaging Modes	<ul style="list-style-type: none"> Mosaic imaging (XY), Z-stack imaging (Z), Time-lapse imaging (T) Time-lapse imaging at Multi-position (T - M) Time-lapse & Z-stack imaging (TZ) Time-lapse & Z-stack imaging at Multi-position (TZ - M)

New All-in-One IVM Series Size Information



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