

IVIS Imaging Systems

							
IVIS SYSTEM COMPARISON	IVIS LUMINA LT SERIES III	IVIS LUMINA SERIES III	IVIS LUMINA K SERIES III	IVIS LUMINA XRMS SERIES III	IVIS SPECTRUMBL	IVIS SPECTRUM	IVIS SPECTRUMCT
Animal Capacity	3 Mice (5 Mice with XFOV upgrade)	3 Mice (5 Mice with XFOV upgrade)	3 Mice (5 Mice with XFOV upgrade)	3 Mice	10 Mice	5 Mice (10 mice with upgrade manifold)	5 Mice (10 mice with upgrade manifold)
2D Bioluminescence/Chemiluminescence	√	√	√	√	√	√	√
2D Fluorescence	√	√	√	√		√	√
Full Spectral Tunability	Upgradable	√	√	√		√	√
Cerenkov Imaging	√	√	√	√	√	√	√
Epi-Illumination	√	√	√	√		√	√
Trans-Illumination						√	√
3D Fluorescence Tomography						√	√
3D Bioluminescence Tomography					√	√	√
Quantification	√	√	√	√	√	√	√
Absolute Calibration	√	√	√	√	√	√	√
3D Multimodal Co-Registration (PET, CT, MRI)					√ (for bioluminescent reporters)	√	√
Integrated Small and Large Animal X-Ray/CT				√			√
Kinetic Imaging (10ms)			√				
Compute Pure Spectrum - Spectral Unmixing	Upgradable	√	√	√		√	√
Heated Chamber	√	√	√	√	√	√	√

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Detector Type	0.5" Back-thinned, back - illuminated Grade 1 CCD	0.5" Back-thinned, back - illuminated Grade 1 CCD	0.5" EMCCD	0.5" Back-thinned, back - illuminated Grade 1 CCD	1" Back-thinned, back - illuminated Grade 1 CCD	1" Back-thinned, back - illuminated Grade 1 CCD	1" Back-thinned, back - illuminated Grade 1 CCD
Camera Temp	(-90 °C)	(-90 °C)	(-80 °C)	(-90 °C)	(-90 °C)	(-90 °C)	(-90 °C)
CCD Size	1.3 cm X 1.3 cm	1.3 cm X 1.3 cm	1.3 cm X 1.3 cm	1.3 cm X 1.3 cm	2.7 cm X 2.7 cm	2.7 cm X 2.7 cm	2.7 cm X 2.7 cm
CCD Pixel Size (um)	13.5	13.5	13.5	13.5	13.5	13.5	13.5
FOV (cm)	5 - 12 cm (25 cm with XFOV and 2.6 cm with ZFOV attachment)	5 - 12 cm (25 cm with XFOV and 2.6 cm with ZFOV attachment)	5 - 12 cm (25 cm with XFOV and 2.6 cm with ZFOV attachment)	5 - 12 cm (25 cm with XFOV and 2.6 cm with ZFOV attachment)	4 - 22.5 cm	4 - 22.5 cm	4 - 22.5 cm
Min. Detectable Radiance	100 photons/s/sr/cm ²	100 photons/s/sr/cm ²	100 photons/s/sr/cm ²	100 photons/s/sr/cm ²	70 photons/s/sr/cm ²	70 photons/s/sr/cm ²	70 photons/s/sr/cm ²
Resolution (Microns)	50 (35 with ZFOV)	50 (35 with ZFOV)	50 (35 with ZFOV)	50 (35 with ZFOV)	20	20	20
Imaging Pixels	1024 x 1024	1024 x 1024	1024 x 1024	1024 x 1024	2048 x 2048	2048 x 2048	2048 x 2048
Wavelength Range (nm)	430 - 850	430 - 850	430 - 850	430 - 850	430 - 850	430 - 850	430 - 850
Number of Emission Filters	4	7	7	7		18	18
Emission Filters	515-575 nm, 575-650 nm, 695-770 nm and 810-875 nm	520, 570, 620, 670, 710, 790, 845	520, 570, 620, 670, 710, 790, 845	520, 570, 620, 670, 710, 790, 845		500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780, 800, 820, 840	500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780, 800, 820, 840
Number of Excitation Filters	10	19	19	19		10	10
Excitation Filters	430, 465, 500, 535, 570, 605, 640, 675, 710, 745	420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780	420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780	420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780		430, 465, 500, 535, 570, 605, 640, 675, 710, 745	430, 465, 500, 535, 570, 605, 640, 675, 710, 745
Excitation Lightsource	Extended NIR Range 150 W Tungsten EKE-ER	Extended NIR Range 150 W Tungsten EKE-ER	Extended NIR Range 150 W Tungsten EKE-ER	Extended NIR Range 150 W Tungsten EKE-ER		Extended NIR Range 150 W Tungsten EKE	Extended NIR Range 150 W Tungsten EKE
Minimum Temporal Resolution (Fast Imaging)	1 s	1 s	10 ms	1 s	1 s	1 s	1 s
Accessory Line	Zoom lens, Expansion lens, isolation chamber, ECG, Injection system, Anesthesia, pull out tray, calibration tools, phantom mice, DyCE Imaging, Multi View Imaging	Zoom Lens, Expansion lens, isolation chamber, ECG, Injection system, Anesthesia, pull out tray, calibration tools, phantom mice, DyCE Imaging, Multi View Imaging	Zoom lens, Expansion lens, isolation chamber, ECG, Injection system, Anesthesia, pull out tray, calibration tools, phantom mice, Ventral Imaging Chamber, DyCE Imaging	Zoom Lens, Isolation chamber, ECG, Injection system, Anesthesia, pull out tray, calibration tools, phantom mice, DyCE Imaging, Multi View Imaging	Isolation chamber, Anesthesia, calibration tools, phantom mice, Multimodality Software and Mouse Imaging shuttle, DyCE Imaging, Multi View Imaging	10 mice manifold, Isolation chamber, Anesthesia, calibration tools, phantom mice, Multimodality Software and Mouse Imaging shuttle, DyCE Imaging, Multi View Imaging	10 mice manifold, Isolation chamber, Anesthesia, calibration tools, phantom mice, Multimodality Software and Mouse Imaging shuttle, DyCE Imaging, Multi View Imaging

PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
P: (800) 762-4000 or
(+1) 203-925-4602
www.perkinelmer.com



For a complete listing of our global offices, visit www.perkinelmer.com/ContactUs

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