


IVIS Imaging Systems

	2D OPTICAL BENCHTOP SYSTEMS					2D AND 3D OPTICAL TOMOGRAPHY SYSTEMS		
IVIS SYSTEM COMPARISON								
	IVIS LUMINA LT	IVIS LUMINA III	IVIS LUMINA XRMS	IVIS LUMINA S5	IVIS LUMINA X5	IVIS SPECTRUMBL	IVIS SPECTRUM	IVIS SPECTRUMCT
Animal Capacity	3 Mice	3 Mice	3 Mice	5 Mice	5 Mice	10 Mice	5 Mice (10 mice with manifold upgrade)	5 Mice (10 mice with manifold upgrade)
2D Bioluminescence/ Chemiluminescence	✓	✓	✓	✓	✓	✓	✓	✓
Cerenkov Imaging	✓	✓	✓	✓	✓	✓	✓	✓
Epi-Illumination	✓	✓	✓	✓	✓	Upgradeable	✓	✓
Full Spectral Tunability	Upgradeable	✓	✓	✓	✓	Upgradeable	✓	✓
CPS Spectral Unmixing	Upgradeable	✓	✓	✓	✓	Upgradeable	✓	✓
Trans-Illumination						Upgradeable	✓	✓
3D Bioluminescence Tomography						✓	✓	✓
3D Fluorescence Tomography						Upgradeable	✓	✓
3D Multimodal Co-Registration (PET, CT, MRI)						✓ (for BLI reporters)	✓	✓
Integrated Small and Large Animal X-Ray/CT			✓		✓			✓
X-ray/uCT Animal Capacity			2 Mice		5 Mice			2 Mice
Quantification p/sec/cm2/str	✓	✓	✓	✓	✓	✓	✓	✓
NIST Calibration	✓	✓	✓	✓	✓	✓	✓	✓

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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" 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	1" Back-thinned, back-illuminated Grade 1 CCD	1" Back-thinned, back-illuminated Grade 1 CCD
Camera Temp	(-90 °C)	(-90 °C)	(-90 °C)	(-90 °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	2.7 cm X 2.7 cm	2.7 cm X 2.7 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	13	13	13.5	13.5	13.5	13.5	13.5
Optical FOV (cm)	5 - 12 cm (2.6 cm with ZFOV attachment)	5 - 12 cm (2.6 cm with ZFOV attachment)	5 - 12 cm (2.6 cm with ZFOV attachment)	10-20 cm	10-20 cm	4 - 22.5 cm	4 - 22.5 cm	4 - 22.5 cm
Optical Resolution (Microns)	50 (35 with ZFOV)	50 (35 with ZFOV)	50 (35 with ZFOV)	50	50	20	20	20
Imaging Pixels	1024 x 1024	1024 x 1024	1024 x 1024	2048 x 2048	2048 x 2048	2048 x 2048	2048 x 2048	2048 x 2048
Wavelength Range (nm)	415-875	410 - 865	410 - 865	410 - 865	410 - 865		415 - 850	415 - 850
Number of Emission Filters/ Bandwidth	4/Variable	40 nm	40 nm	40 nm	40 nm		18/20 nm	18/20 nm
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	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/ Bandwidth	10/30 nm	19/20 nm	19/20 nm	19/20 nm	19/20 nm		10/30 nm	10/30 nm
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	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 Light Source	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-ER		Extended NIR Range 150 W Tungsten EKE	Extended NIR Range 150 W Tungsten EKE
Heated Chamber	20 - 40 °C	20 - 40 °C	20 - 40 °C	20 - 40 °C	20 - 40 °C	20 - 40 °C	20 - 40 °C	20 - 40 °C
Accessory Line	Zoom lens, MVI-2, expansion lens, isolation chamber, injection system, anesthesia, pull out tray, calibration tools, phantom mice	Zoom lens, MVI-2, expansion lens, isolation chamber, injection system, anesthesia, pull out tray, calibration tools, phantom mice	Zoom Lens, MVI-2, Isolation chamber, injection system, anesthesia, pull out tray, calibration tools, phantom mice	Quick connect anesthesia system, 5 mouse tray, posing station, RFID and P-chip support, MVI-2, Isolation chamber, injection system, anesthesia, calibration tools, phantom mice	Quick connect anesthesia system, 5 mouse tray, posing station, RFID and P-chip support, MVI-2, Isolation chamber, injection system, anesthesia, calibration tools, phantom mice	Isolation chamber, injection system, anesthesia, calibration tools, phantom mice, Multimodality Software and Mouse Imaging Shuttle	10 mouse manifold, injection system, Isolation chamber, anesthesia, calibration tools, phantom mice, Multimodality Software and Mouse Imaging Shuttle	Injection system, anesthesia, calibration tools, phantom mice, Multimodality Software

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