



IVIS imaging systems



2D optical benchtop systems						2D & 3D optical tomography systems	
							
IVIS system comparison	IVIS LUMINA LT	IVIS LUMINA III	IVIS LUMINA XRMS	IVIS LUMINA S5	IVIS LUMINA X5	IVIS SPECTRUM 2	IVIS SPECTRUMCT 2
Animal Capacity	5 Mice*	5 Mice*	3 Mice	10 Mice**	10 Mice**	10 mice**	10 mice**
Compatible with high-throughput Smart Tray Accessories				✓	✓	✓	✓
2D Bioluminescence/ Chemiluminescence	✓	✓	✓	✓	✓	✓	✓
Cerenkov Imaging	✓	✓	✓	✓	✓	✓	✓
Epi-Illumination	✓	✓	✓	✓	✓	✓	✓
Full Spectral Tunability	Upgradable	✓	✓	✓	✓	✓	✓
CPS Spectral Unmixing	Upgradable	✓	✓	✓	✓	✓	✓
Trans-Illumination						✓	✓
3D Bioluminescence Tomography						✓	✓
3D Fluorescence Tomography						✓	✓
3D Multimodal Co-Registration (PET, CT, MRI)						✓	✓
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	✓	✓	✓	✓	✓	✓	✓

*Using expansion lens

**Using optional manifold kit

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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				Thermoelectrically cooled, back-illuminated CCD camera with eXcelon® coating				Thermoelectrically cooled, back-illuminated CCD camera with eXcelon® coating			
Camera Temp	(-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			
CCD Pixel Size (um)	13				13				13				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				10-22.5 cm				10-22.5 cm				3.9 - 22.5 cm				3.9 - 22.5 cm			
Optical Resolution (Microns)	50 (35 with ZFOV)				50 (35 with ZFOV)				50 (35 with ZFOV)				50				50				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			
Wavelength Range (nm)	415-875				410 - 865				410 - 865				410 - 865				410 - 865				415 - 850				415 - 850			
Number of Emission Filters/Bandwidth	4/Variable				7/40 nm				7/40 nm				7/40 nm				7/40 nm				18/20 nm				18/20 nm			
Emission Filters	515-575 695-770	575-650 810-875	500-540 550-590 600-640 650-690 690-730 770-810 825-865												490-510 710-730 550-570	590-610 810-830 650-670	690-710 530-550 750-770	790-810 630-650 570-590	510-530 730-750 670-690	610-630 830-850 770-790								
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	415-445 485-515	590-620 660-690 555-585	450-480 520-550 730-760	625-655 695-725	410-430 430-450	450-470 470-490	490-510 510-530	530-550 550-570	570-590 590-610	610-630 630-650	650-670 670-690	690-710 710-730	750-770 770-790	415-445 450-480	485-515 520-550	555-585 590-620	625-655 660-690	730-760 695-725										
Excitation Light Source	Extended NIR Range 150 W Tungsten EKE				Extended NIR Range 150 W Tungsten EKE				Extended NIR Range 150 W Tungsten EKE				Extended NIR Range 150 W Tungsten EKE				Extended NIR Range 150 W Tungsten EKE				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			

