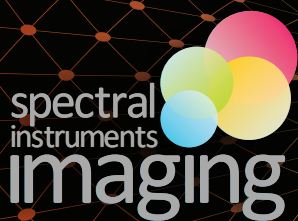


# Amx HTX

In Vivo, Optimized



# IN VIVO, OPTIMIZED

## Best-in-class Performance



### 29% More Sensitive

When comparing minimum detectable radiance for bioluminescence to the leading competitor in its class



### Patented LED Illumination

100x more light on target gives you a stronger fluorescence signal with minimal background for superior quantitation



### BLI • FLI • X-ray

Advanced preclinical optical imaging: Bioluminescence, Fluorescence & X-ray



### 5 Mouse Capacity

High efficiency *In vivo* imaging now available on your benchtop



### License Free Software

Aura Imaging Software is a robust analysis tool available for PC & Mac users  
Import legacy Living Image® files

# RAISING THE BAR

## **-90°C Absolute Air-Cooled Camera**

No Liquids • No Chillers • No Leaks  
Reliable & ready to use in 5 minutes.

## **Access Port**

Light tight access port for external systems connections \*Field Upgradable.

## **Vertical Door**

Saves bench space & reduces waste anesthesia gas exposure.

## **Patented LED Fluorescence Excitation**

High intensity light source generates 100x more light on target. Individual LED colors/wavelengths are used to improve specificity & reduce background.

## **Anesthesia**

Compatible with third party systems.

## **Animal Friendly Heated Platform**

Unique materials and convection method produce even heating & uniform temperature for improved animal comfort & reliable enzyme kinetics.

## **Automated, X-ray Source**

Enables rapid acquisition of X-ray images.  
Maintains Specimen numbers between optical & X-ray. \*Field Upgradable

## **Patented Steel Construction**

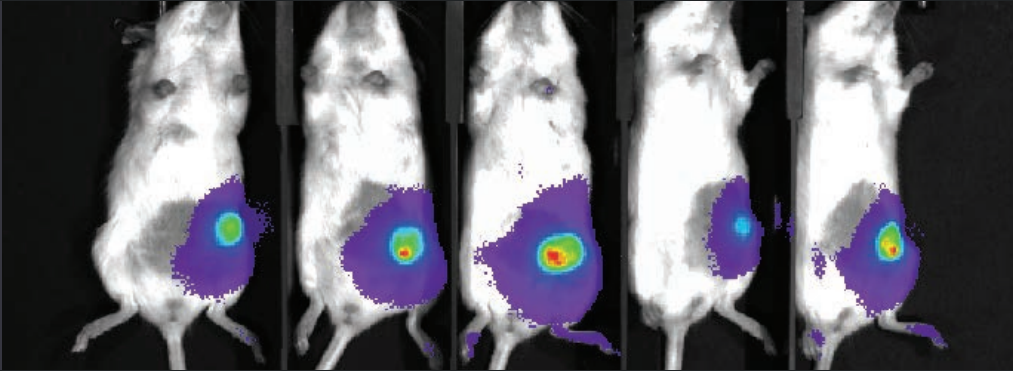
Innovative light tight cabinet - Designed without parts that can wear over time & compromise data quality.



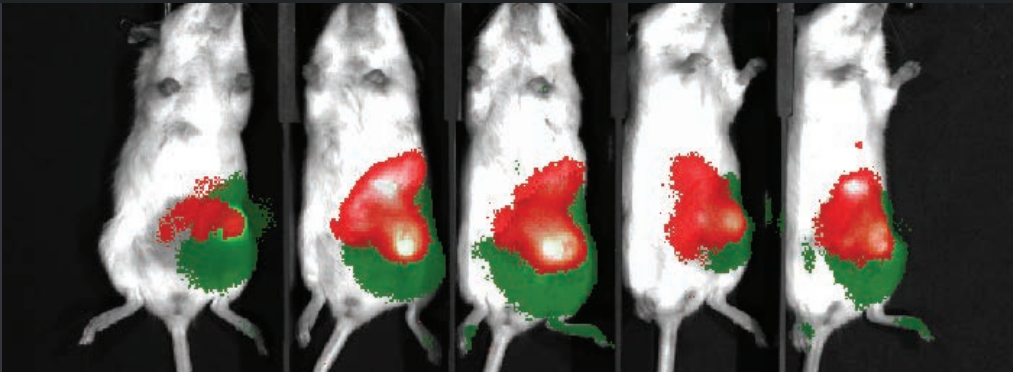


# BUILT FOR YOUR LIFE'S WORK

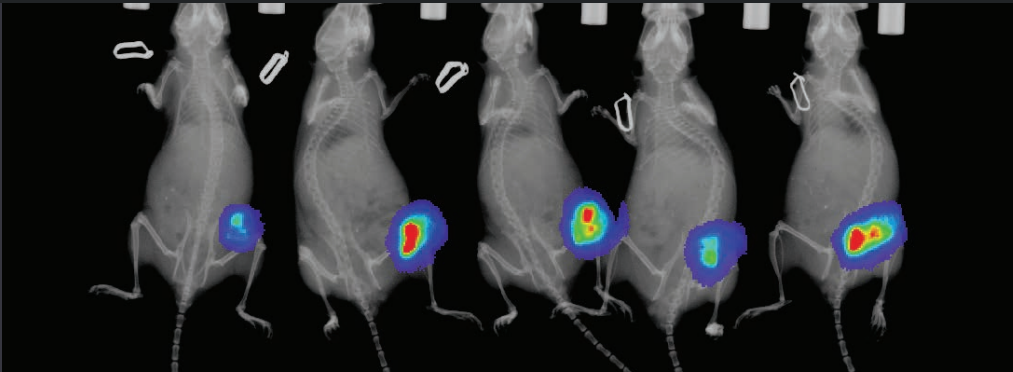
BLI



FLI



X-RAY



## Image 5 Mice

25cm x 17cm FOV

Optimized sensor size  
Ideal for imaging 5 mice

*We have used our Ami HTX intensively for the past four years and have been extremely pleased with the sensitivity and reliability of this instrument, both for NIR fluorescence & bioluminescence capture. Operation is very simple and the system needs almost no maintenance at all. On top of this, technical support is easy to reach and quick to reply with solutions for general use and technical questions.*

# BETTER FLUORESCENCE EXPERIENCE



## Patented LED Technology

High intensity fluorescent excitation source results in stronger signals - with less background for Superior Signal-to-Noise & earlier detection.



## 100x more light on target

\*than traditional white light sources

LEDs have a direct path to targets. No use of fiber optic cables that can contaminate & attenuate excitation light.



## Stable & Linear Excitation Light

Long life LED's - Rated for 100,000 hrs of imaging. Lasts 1000x longer than tungsten bulbs, never fading or compromising your data. Fine tune adjustable power of every LED. No warm up time.



## Flexibility Across the Spectra

10 excitation LED's | 10 emission filters of your choice with custom options available. Additional filters can be changed by operator if needed.

*We have found the NIR fluorescence to be of high sensitivity with the ability to differentiate signals at 680nm, 715nm, 750nm, and 800nm.*

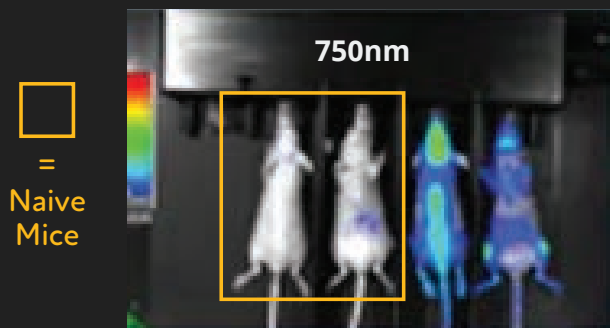
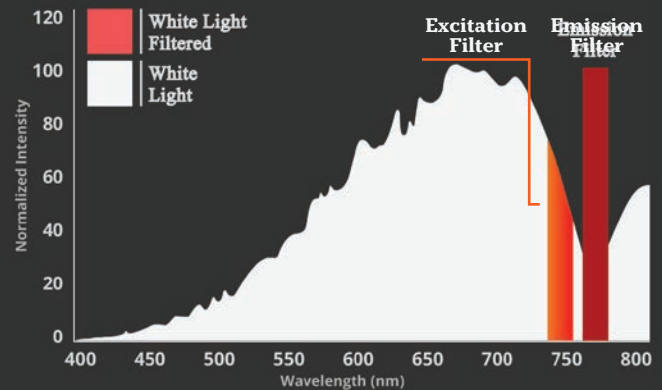
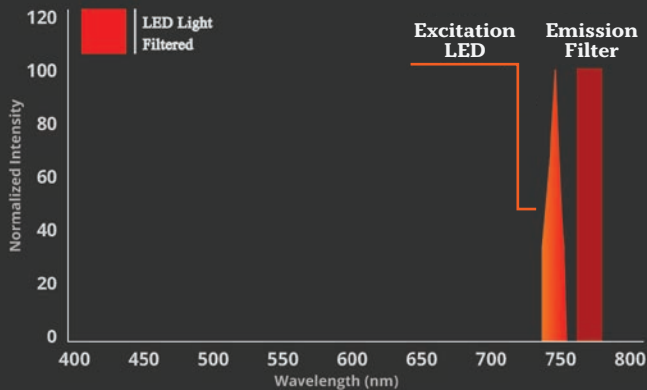
Multiplex FLI: GFP & ProSense 750

# SPECIFICITY IN EXCITATION

Spectral Instruments Imaging  
**Uses Highly Specific LED Light**

VS

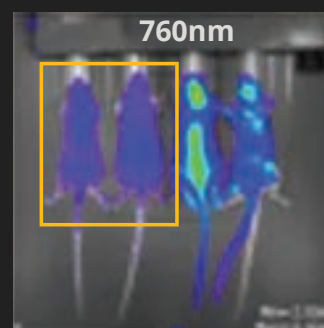
Leading Market Competitor  
**Uses Broad Diffuse White Light**




  
= Naive Mice

Courtesy of Dr. Timothy Doyle, Molecular Imaging Program at Stanford, Dept. of Pediatrics, School Of Medicine, Stanford University.

An array of narrow-spectrum LEDs produces precisely defined excitation light across the visible light spectrum.



  
= Naive Mice

Courtesy of Dr. Timothy Doyle, Molecular Imaging Program at Stanford, Dept. of Pediatrics, School Of Medicine, Stanford University.

High photon flux of a broad white light source overwhelms any one excite filter, causing the excitation light to be contaminated by out-of-band photons. This non-specific light reflects off mice, reducing Signal/Noise ratio.

*The LED based illumination meant that there was nearly a 90X more light incident on the surface of the specimen versus traditional white lights used by other manufacturers which translates to earlier detection – sometimes weeks ahead – saving researchers time and money. It also dramatically improved the utilization of the imaging core.*



# 100% LICENSE FREE ANALYSIS SOFTWARE



Aura Software is comprehensive & provides a seamless, end to end workflow – from acquisition to analysis.



SI supports open collaboration by providing analysis copies of Aura 100% license free for both Mac & PC.



Aura Software supports legacy files by opening & analyzing IVIS® Living Image® optical data.

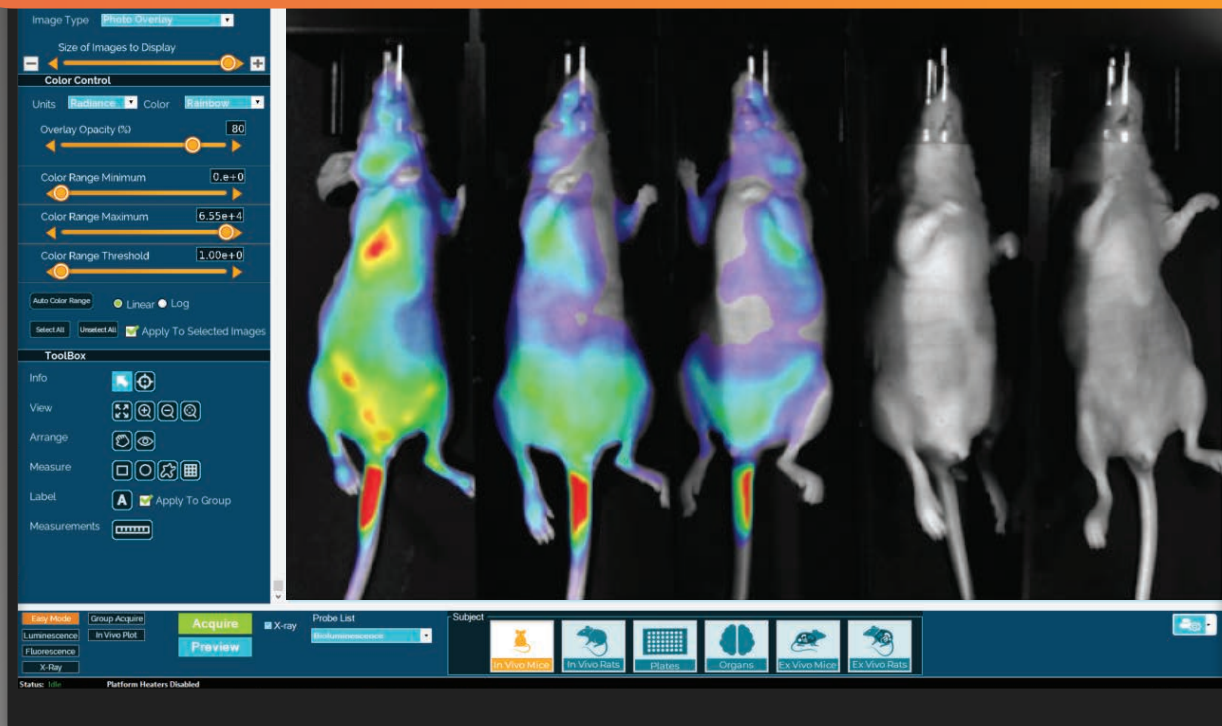
## 3 Clicks to Acquisition



New **Easy Mode** makes capturing data faster than ever before.

Simply select your probe & subject & acquire your data!

**Smart AutoExp** with proprietary **SmoothBlend** technology enables rapid data acquisition at maximum sensitivity without compromising image quality.



# ROBUST & RELIABLE WORKHORSE



## Spectral Instruments' novel Solid State Air-Cooled Cameras

Provide ultra cold  $-90^{\circ}\text{C}$  absolute cooling without the use of liquids or gas for support which guarantees *No Leaks!*



## Less pieces & parts to break

Built without limit switches or other dated parts prone to failure. Innovative light tight cabinet with interlocking greek keyed steel avoids gaskets that crack & degrade over time. Vertical door to save space & minimize isoflurane exposure.



## Factory Calibrated

All instruments are factory calibrated prior to shipment, allowing easy and quick installation. Factory calibrations last over the life of the instrument, maintaining high data quality.



## Absolute Calibration

Ensures data accuracy regardless of changes in animal position or camera settings. Traceable to NIST standard.

## Made for Scientists, by Scientists

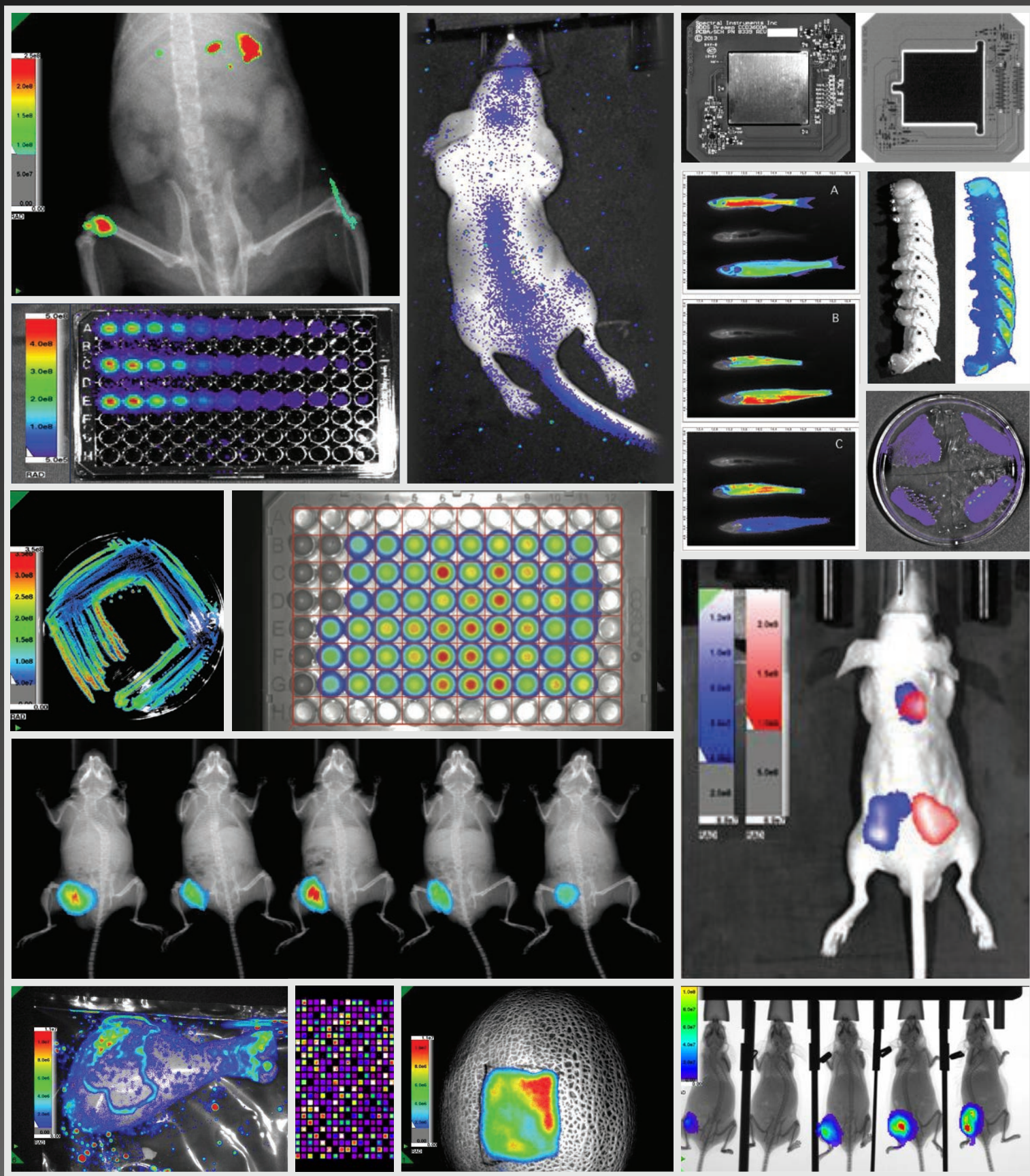
Spectral Instruments Imaging is the fusion of 2 principal developers of in vivo imaging technology & a world renown manufacturer of specialty detection systems.

Together, they represent 30 years of high-end optical design, numerous scientific publications & patents, & a singular dedication to preclinical optical imaging.





# IMAGINE THE POSSIBILITIES



# SELECTION GUIDE



	Lago X	Lago	Ami HTX	Ami HT	Kino
<b>Ideal For:</b>	High Capacity Imaging Cores, BioPharma		Animal Care Specialists, CROs		Small Startups
<b>Bioluminescent Imaging (BLI)</b>	✓	✓	✓	✓	✓
<b>Fluorescent Imaging (FLI)</b>	✓	✓	✓	✓	✓
<b>X-ray</b>	✓	Field Upgradeable	✓	Field Upgradeable	N/A
<b>Mouse Capacity</b>	10 Mice	10 Mice	5 Mice	5 Mice	3 Mice
<b>Maximum Optical Field of View (cm)</b>	25 x 25	25 x 25	25 x 17	25 x 17	12.5 x 12.5
<b>Patented LED Excitation</b>	✓	✓	✓	✓	✓
<b># of LED (Fluorescent) Excitation Wavelengths</b>	14	14	10	10	10
<b>Included LED Excitation Wavelengths</b>	360, 405, 430, 465, 500, 535, 570, 605, 640, 675, 710, 745, 770, & 805nm		430, 465, 500, 535, 570, 605, 640, 675, 710, & 745nm		430, 465, 500, 535, 570, 605, 640, 675, 710, & 745nm
<b>Fluorescent Emission Filters</b>	20	20	10	10	5
<b>Standard Emission Filter Choices:</b>	490, 510, 530, 550, 570, 590, 610, 630, 650, 670, 690, 710, 730, 750, 770, 790, 810, 830, 850, & 870nm				
<b>CCD -90°C Absolute Solid State Cooling</b>	✓	✓	✓	✓	✓
<b>Minimum Detectable Radiance</b>	45 photons/sec/cm2/sr	45 photons/sec/cm2/sr	50 photons/sec/cm2/sr	50 photons/sec/cm2/sr	59 photons/sec/cm2/sr
<b>Camera Sensor</b>	1" back-illuminated Grade 1 plus CCD	1" back-illuminated Grade 1 plus CCD	1" back-illuminated Grade 1 plus CCD	1" back-illuminated Grade 1 plus CCD	.5" back-illuminated Grade 1 plus CCD
<b>Pixel Dimensions</b>	2048 x 2048	2048 x 2048	1152 x 770	1152 x 770	1024 x 1024
<b>High Performance CCD Size</b>	27.6 x 27.6mm	27.6 x 27.6mm	25.9 x 17.3mm	25.9 x 17.3mm	13mm x 13mm
<b>Quantum Efficiency: &gt;85% efficiency 500-700nm; &gt;35% efficiency 700-900nm</b>	✓	✓	✓	✓	✓
<b>Dark Current</b>	<49 e-/sec/cm²	<49 e-/sec/cm²	<49 e-/sec/cm²	<49 e-/sec/cm²	<100 e-/sec/cm²
<b>Binning</b>	1x1,2x2,4x4,8x8,16x16	1x1,2x2,4x4,8x8,16x16	1x1,2x2,4x4,8x8	1x1,2x2,4x4,8x8	1x1,2x2,4x4,8x8
<b>Lens</b>	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16
<b>Absolute Calibration, NIST Traceable</b>	✓	✓	✓	✓	✓
<b>X-ray Source</b>	10-50keV	Field Upgradeable	10-40 keV	Field Upgradeable	N/A
<b>X-ray Camera</b>	Line scanning imager	Field Upgradeable	Line scanning imager	Field Upgradeable	N/A
<b>X-ray Field of View</b>	25x22cm	Field Upgradeable	25 x 15cm	Field Upgradeable	N/A
<b>Heated Imaging Platform, 20-40c</b>	✓	✓	✓	✓	✓
<b>Inlet &amp; Outlet Ports for Gas Anesthesia</b>	✓	✓	✓	✓	✓
<b>Light Tight Access Port (Field Upgradeable)</b>	Optional	Optional	Optional	Optional	Optional
<b>Space Requirements</b>	56cm(w) x 66cm (d) x 211cm (h)	56cm(w) x 66cm (d) x 211cm (h)	56cm (w), 66cm (d), 122cm (h)	56cm (w), 66cm (d), 122cm (h)	56cm (w), 66cm (d), 122cm (h)
<b>System Internal Dimension</b>	Imaging platform: 50x34cm	Imaging platform: 50x34cm	Imaging platform: 50x34cm	Imaging platform: 50x34cm	Imaging platform: 50x34cm
<b>PC, Monitor &amp; Software Included</b>	✓	✓	✓	✓	✓
<b>Aura Analysis Software: License Free (MAC &amp; PC)</b>	✓	✓	✓	✓	✓