xeos AURA

AURA 10 PET-CT Specimen Imager
Technical Specifications

The **AURA 10** PET-CT is the first-ever PET-CT specimen imager for the operating room (OR), offering surgeons and imaging specialists the sensitivity of PET imaging at submillimeter spatial resolution. Combined in a compact and ergonomic mobile scanner, a specimen does no longer need to be transported to the radiology or pathology department during surgery. High-quality specimen images can now be obtained in the OR within 10 minutes after excision.



PET		
Crystal material		monolythic LYSO
Crystal size		345 x 345 x 12 mm
Detector Technology		8 x 8 array of SiPMs
Field of View	*Axial*	100 mm
	Transactial	68 mm
Spatial resolution		< 1.0 mm
Sensitivity		6%
Reconstruction Algorithms		3D OSEM with resolution modeling
Image reconstruction time		10 minutes
CT		
X-ray Detector		
Detector Technology		14-bit Indirect CMOS, 99 µm
X-ray Absorption Material		Columnar CsI Scintillator
Active Image Area Size		147 x 114 mm
Array size	*Detector pixels*	1488 x 1148
Pixel Size	*Detector resolution*	99 x 99 µm
Limiting Spatial Resolution		5 lp/mm
Output Image		14-bit image data
Geometric Magnification		1.33x
Axial Field of View		100 x 70 mm
X-ray Source | Tube		
Energy Range	*Voltage range*	0-50 kVp
Anode Type	*Target Material*	Tungsten
Tube Current	*Current*	Up to 1.0 mA
Exposure	*Exposure time*	Up to 60 seconds
Filtration		127 µm beryllium | 1 mm aluminium
Image Reconstruction		
Reconstruction time		< 2 minutes
Reconstructed resolution		100 µm
Metal artifact correction		Automatic

IMAGE DISPLAY		
Imaging type		Fused 3D CT and PET imaging
Image Processing		Manual control window level parameters
		Preset configurations for PET en CT
		Orientation indication
		Clip verification
		Scroll through slices
Magnification		Zoom in, Zoom out
Multi-View		Single and Quad view lay-out
Calibration		User-initiated auto-calibration of CT
Other		Distance Measurement
ELECTRICAL REQUIREMENTS		
Power		AC input : 120-250 VAC, 50/60 Hz
Power Consumption		1.2 kW peak, 600 W typical
DIMENSIONS		
Construction		Mobile imaging system with display monitor
Dimensions (H x W x D)	*imager*	40.6" H x 20.7" W x 26.6" D | 103 x 52.5 x 67.5 cm
	incl. display	63.7" H x 20.7" W x 26.6" D | 161.0 x 52.5 x 67.5 cm
Weight Net	*imager*	146kg | 322 lbs
	incl. display	150kg | 330 Lbs
Weight Shipping	*imager*	245 kg | 540 lbs
	incl. display	250 kg | 550 Lbs
DISPLAY MONITOR		
Size		21.3"
Resolution		2MP (1600x1200)
Brightness		High Brightness
DICOM calibrated		Yes
Dimensions	*(W x H x D)*	37.4 x 47.7 x 70.4 cm
Protective Front glass		No
Weight		MDRC 2321 HNIB : 3.6 kg
ACQUISITION WORKSTATION		
CPU		3.4 GHz
Memory		32 GB
GPU		NVIDIA RTX A4000
Hard Disk		512 GB Operating, 2 TB Image Storage
Display Monitor		See above
Operating System		Ubuntu 18.04 LTS
Network Connection		Gigabit Ethernet
Wireless		2.4 GHz, 5 GHz Dual Band
User Interface		12.1" Touch display
		Trackpad
CABINET		
System		Mobile imaging system with display monitor
Specimen holder		Top loading
		Single Use Container with integrated specimen orientation marks
		13MP Integrated Optical Camera
Safety Features		Fully Shielded
		X-Ray activity indicators
		Dual interlock on User-accessible doors

		Login Authentication
		Login Timeout
Indicators		LED strips left/right on cabinet LED ring around specimen holder
Ergonomics		Adjustable swivel and rotate for monitor
		Curved alu handles for easy transportation
		Easy brake system
HOSPITAL IT INTEGRATION		
DICOM Services		Upload to PACS
		Patient selection via Modality Worklist (MWL)
		Query, Retrieve, Store
ACCESORIES		
Specimen Container		Aura Specimen Container - Non-Sterile
	Diameter	10.4cm (4.09”)
	Height	Interior : 4.84 cm (1.91”)
		Exterior : 6.0 cm (2.36”)
CERTIFICATONS		
Safety		IEC 61010-1, 61010-2-091, 61010-2-101
		UL 61010-1, 61010-2-091, 61010-2-101
		CSA C22.2 No 61010-1, No 61010-2-091, No 61010-2-101
EMC		IEC 61326-2-6 3rd Ed:2020
Environmental		REACH, EU RoSH, WEE
Approvals | Marking		EU Regulation 2017/746 (IVDR)
		CE
		ISO 13485 (QMS)
ENVIRONMENTAL CONDITIONS		
Operating Temperature	*Temperature*	18-25°C (64-77°F)
	Relative Humidity	<75% non-condensing
Storage	*Temperature*	0-40°C (32-104°F)
	Relative Humidity	<75% non-condensing
Pressure		Altitude up to 2,000 meters

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Precisely where it matters

We are focused on improving outcomes in surgical oncology through innovations in intraoperative imaging. Our goal is to eliminate the risk of resurgery through smarter specimen imaging.

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