X-ACT+



DIGIRAD
BY CATALYST MEDTECH

The Cardius® X-ACT+ Imaging System

Why settle for low specificity SPECT or the high costs of other imaging methods? **Now you have a choice.**

Digirad has taken the X-ACT camera to the next level with a complete redesign, new features and new benefits. X-ACT+ is a groundbreaking, SPECT/FAC camera that ovffers more accurate test results, less radiation dose to the patient, and does this while reducing the cost burden to the healthcare system.

The X-ACT+ is the world's first and only solid-state SPECT system that features:

- Solid-state detectors
- Rapid imaging detector geometry
- A fully integrated low dose fluorescence x-ray attenuation correction approach
- 3D-OSEM reconstruction techniques
- Upright imaging



With a high-speed, solid-state, triple-head design, the X-ACT+ can complete emission and transmission data acquisitions without repositioning the patient.

Digirad



Setting the standard for SPECT system performance.

With its breakthrough technology, unrivaled precision, and unmatched performance, the X-ACT+ imaging system is not only tackling the industry's challenges, it's leading the way into a new era of nuclear cardiac imaging.

Easy To Operate and Site

With its compact, lightweight design of less than 1,000 lbs., the system can be installed in as small as an 8' x 9' room.

27" Wide-Beam Field of View

With a wide 27" transverse beam and the use of a novel mono-energetic fluorescent X-ray line source, transmission images are free of truncation or beam hardening artifacts.

Modern Solid-State Detectors

Digirad's proprietary solid state, high definition detectors offer superior clinical performance and reliability.

Rapid Imaging System

The high efficiency, solid-state triple-head design with nSPEED™ 3D-OSEM reconstruction, and integrated attenuation correction reduces total imaging time.

A new generation of imaging excellence.

Uniquely designed for the modern healthcare market, the Digirad X-ACT+ delivers a new level of SPECT imaging. Powered by Digirad's proprietary solid-state technology, X-ACT+ produces images with unparalleled clinical accuracy – all while lowering the radiation dose and improving patient ergonomics.



HIGH SPECIFICITY

Without movement of the patient between emission and transmission acquisitions, the co-registration accuracy is substantially improved.



LOW DOSE

The system affords high statistical precision with up to 1,000 times less patient radiation exposure than other commercially-available CT-based AC approaches.

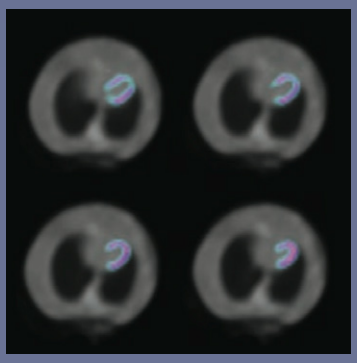


IMPROVED PATIENT ERGONOMICS

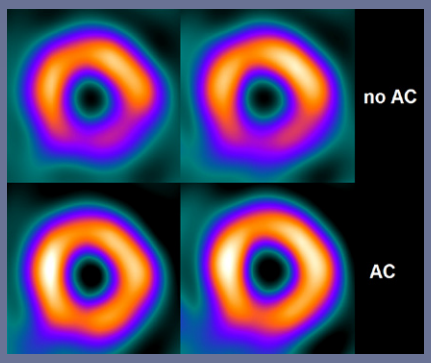
The X-ACT+ improves upon Digirad's revolutionary patient-friendly, open, and upright design. The new design makes imaging easy for patients weighing up to 500 lbs.

Attenuation Correction

The Cardius X-ACT+ imaging system makes it possible to perform cardiac SPECT/FAC studies by employing new low dose fluorescence attenuation correction techniques.



Co-Registered Transmission/Emission



Short Axis Slices

Upgrade to X-ACT+ and take your imaging to the next level

800.947.6134 | www.digirad.com

X-ACT+

Digirad redefines nuclear imaging. Again.









The future of nuclear imaging is clear.

Increased regulations, growing competition, and concerns about radiation exposure are just a sampling of the current challenges facing the nuclear medicine industry. At the same time, there's a clear, commanding call to raise quality, improve efficiencies, and reduce costs. X-ACT+ is the camera to help you meet the demands of the modern healthcare market.

Answer today's challenges and raise clinical performance in nuclear cardiology to an unprecedented level.

- Less space, less labor, and less power requirement
- No site modifications required
- No need to lead-line rooms
- Reduced costs per procedure
- Comfortably image bariatric, claustrophobic, or COPD patients
- Improved patient satisfaction
- Raised clinical confidence and accuracy
- Ability to perform stress-only imaging protocols

CARDIUS X-ACT+ IMAGING SYSTEM

Technical Specifications

DETECTORS

detector technology	solid state, segmented CsI (Tl)/ silicon photodiode
field-of-view (rectangular)	15.8 x 21.2 cm [6.2 x 8.3 in]
pixel size (voxel)	6.1 x 6.1 mm
reconstructed spatial resolution	
FWHM (typical value)	15.6 mm @ 20 cm orbit radius
energy resolution	< 10.5 %
energy range	50 - 170 keV
sensitivity	225 cpm/uCi

GANTRY

type	upright chair
length	264 cm [104 in]
width	73 cm [29 in]
height (from floor to top of arm rest]	160 cm [63 in]
system weight	435 Kg [960 lbs]

ACQUISITION/PROCESSING STATION [A/PS]

acquisition console	flexible positioning
height [work surface]	99 cm [39 in]
acquisition matrix	32 x 32
count rate (max.)	> 3.5 million counts / sec
multitasking	simultaneous acquisition & processing
isotopes imaged	TI-201, Tc-99m, Co-57

CARDIAC IMAGING

applications	MUGA, SPECT, Gated SPECT, Attenuation Correction
heart orientation	cardiocentric imaging, heart in axis of rotation
tomographic acquisition range	202.5°
start angle	-45 or -38° LAO
orbit radius	21 - 38 cm [8.3 - 15 in]
acquisition frames	30 or 60

ENVIRONMENTAL/OPERATION REQUIREMENTS

minimum room size	2.7 m x 2.4 [9 x 8 ft]
recommended room size	3.0 m x 2.4 [10 x 8 ft]
power requirements	20A [dedicated line] @ 120 VAC, 60 Hz 10A [dedicated line] @ 240 VAC, 50/60 Hz
operating temperature	18 - 27°C [65-80°F]
relative humidity	30 - 75%
architectural modifications	not required
environmental storage	0 - 50°C [32 - 122°F]
patient weight limit	227 kg [500 lbs]

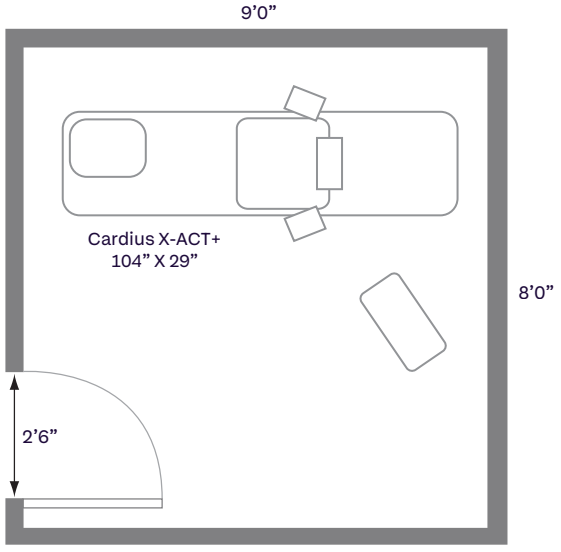
X-RAY SPECIFICATIONS

scan time	60 seconds
X-ray beam energy	40 – 160 keV
(lead fluorescent x-ray)	avg 77.3 keV

RADIATION EXPOSURE SURVEY

location description	operator's station
measured exposure rates	0.36 mR/hr
limit	≤ 0.50 mR/hr

Note: specifications are subject to change. All photos and images may vary slightly from actual product.



MINIMUM ROOM LAYOUT 8' X 9' [2.4 m x 2.7 m]

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BY CATALYST MEDTECH

Digirad is a Catalyst MedTech Company

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