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Infinia®

3/8" or 1" Free-Geometry Dual-Detector Cameras Optional Hawkeye® Hybrid NM/CT

System Description

Infinia is a family of premium, high-performance all-purpose dual detector imaging systems. The Infinia camera-line's foundation is the new advanced, all-digital **Elite**™ detector technology. Infinia comes standard with 3/8" detectors. **Infinia**^{VC}, with 1" Elite detectors and 95 PMTs, offers imaging across the entire range of low-, medium-, and high-energy isotopes.

The free-geometry gantry design enables both 180° and 90° orientations of the detectors for high scanning efficiency, as well as upright and horizontal detector orientations for maximum clinical versatility. An exclusive slip-ring gantry design provides a solid infrastructure for advanced acquisition modes.

Other core components include a PC acquisition station, a dual-axis imaging table, and real-time automatic body contouring. The Infinia system offers the ability to upgrade to an **Infinia Hawkeye**®or **Infinia**^{VC} **Hawkeye** configuration. The **Hawkeye**® option generates inherently registered CT Transmission Attenuation Correction and Functional Anatomic Mapping. Furthermore, the Infinia^{VC} systems offer an optional **CoDe™** coincidence imaging mode for performing camera-based PET.

Infinia with the **Xeleris**™ Processing and Review workstation creates a fully integrated productivity solution, resulting in advances such as the exclusive **Ignite**™ workflow feature.

Clinical Applications

Infinia is a general-purpose camera featuring static, dynamic, whole body, multi-gated SPECT, gated SPECT, and whole body SPECT nuclear medicine studies. In addition, optional **CoDe** performs camera-based PET via coincidence imaging mode. Further, a wide array of collimator options allows for clinical applications such as brain SPECT with fan-beam collimation and Tc-99m/FDG dual-isotope simultaneous-acquisition (DISA) for cardiac SPECT with **Infinia**^{VC}.

Infinia Hawkeye

Key Features

Detector Overview

Infinia's imaging power is based on two extra-large rectangular Elite digital detectors, featuring five real-time corrections:

- Uniformity
- Linearity
- Energy
- Isotope decay
- Center of Rotation (COR)

Direction 2411980-100 Rev3

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3/8" Detector Characteristics:

- 59 circular PMTs - 53 x 3" (76 mm) and 6 x 1.5" (38 mm)
- Crystal Thickness: 3/8" (9.5 mm)
- One ADC per PMT, with 30.3 MHz sampling rate and 10-bit word depth
- NEMA UFOV: 21.25" x 15.75" (54 x 40 cm)
- Energy Range: 40 - 511 keV *
  * *Excluding FDG imaging*

1" Detector Characteristics:

- 85 x 2.36" (60 mm), and 10 x 1.5" (38 mm) circular PMT's
- Crystal Thickness: 1" (25.4 mm)
- Grooved crystals to improve resolution for low energy
- One ADC per PMT, with 30.3 MHz sampling rate and 10-bit word depth
- NEMA UFOV: 21.25" x 15.75" (54 x 40 cm)
- Energy Range: 40 - 681 keV (including FDG imaging)

Infinia Detector Performance
NEMA* Specifications Summary

SPECIFICATION	PARAMETER	RANGE	DATA (3/8" Crystal)	DATA (1" Crystal)
Intrinsic Energy Resolution (Tc-99m @ 20 kcps)	UFOV: FWHM	≤	9.8%	9.8%
Intrinsic Spatial Resolution	CFOV: FWHM	≤	3.8 mm	4.5 mm
	FWTM	≤	7.1 mm	8.3 mm
	UFOV: FWHM	≤	3.9 mm	4.5 mm
	FWTM	≤	7.2 mm	8.5 mm
Flood Field Uniformity	CFOV: Differential	≤	2.1%	2.1%
	Integral	≤	3.0%	3.5%
	UFOV: Differential	≤	2.3%	2.5%
	Integral	≤	3.6%	4.5%
Intrinsic Spatial Linearity	CFOV: Differential	≤	0.1 mm	0.1 mm
	Absolute	≤	0.5 mm	0.5 mm
	UFOV: Differential	≤	0.1 mm	0.1 mm
	Absolute	≤	0.5 mm	0.5 mm
Multiple Window Spatial Registration		≤	0.5 mm	1.5 mm
Intrinsic Count Rate**	Max Count Rate	≥	460 kcps	460 kcps
	Maximum @ 20% Window	≥	370 kcps	370 kcps
	20% Loss @ 20% Window	≥	300 kcps	250 kcps
SPECT Reconstructed Spatial Resolution with Scatter (LEHR Collimators)	Central	≤	9.9 mm	10.5 mm
	Radial	≤	9.9 mm	10.5 mm
	Tangential	≤	7.5 mm	8.1 mm

**** NEMA 2001 NU-1***
***** These specifications have not been measured according to NEMA standards***

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Gantry

Infinia features a slip-ring tomographic ring gantry, enabling power transmission to the rotating module that contains the detectors, and rapid digital data transmission from the detectors to the acquisition station. The gantry includes the necessary infrastructure for the optional Hawkeye upgrade.

- Automated detector radial motion (in/out), axial motion (around the ring), and variable geometry transitions between 180° and 90° detector orientations are pre-programmed, computer-controlled motions.
- Flexible design enables a variety of scanning procedures, including upright seated or standing patients and imaging patients on stretchers.
- The stationary gantry is secured to the floor, increasing tomographic center-of- rotation precision.
- Camera setup is performed interactively by the remote control handset and via user-definable pre-programmed acquisition-specific “home” positions.
- A gantry display unit presents current status of the gantry’s moving parts and the patient table.
- The detectors are equipped with real-time Automatic Body Contouring (ABC) to enhance scanning efficiency and resolution in 90° SPECT, 180° SPECT, and Whole Body procedures.
- 2 Emergency Stops, located on either side of gantry
- Additional flexibility is now available via caudal/cephalic tilt. This feature enables the swiveling of each detector head independent of the other. This is particularly valuable in the Horizontal 0° planar position.

Programmed Gantry Orientations:

180° SPECT/WB

90° SPECT

Horizontal 0° Planar

Vertical 180° Planar Out

Vertical 180° Planar In

Horizontal Upright

Infinia Gantry Specifications

DIMENSIONS & MOTIONS	DATA
Depth x Width x Height (Excluding the gantry display pole) Gantry bore size	76.8” x 68.9” x 74.8” (195 cm x 175 cm x 190 cm) 614mm
Weight (Gantry & two 3/8” Detectors) (Gantry, Hawkeye & two 3/8” Detectors) (Gantry & two 1” Detectors) (Gantry, Hawkeye & two 1” Detectors)	 5172 lb (2351 kg) 5392 lb (2451 kg) 5227 lb (2376 kg) 5447 lb (2476 kg)
Rotational (Axial) Motion Speed	180° geometry: 0.25-2.6 rpm 90° geometry: 0.25-2.0 rpm
Independent Radial Motion Speed	11.8” or 29.5”/min (30 or 75 cm/min)
Gantry Orientations - SPECT - Static	 90° and 180° opposing 90° and 180° opposing, Horizontal 0° Planar, Horizontal Upright, Vertical 180° Planar
Caudal/Cephalic Tilt Range	Each detector can swivel independently ± 45°
Detector Swivel Tilt Range	0° to 180° about detector axis
Detector Scan Radius (With LEHR Collimators)	Minimum: 3.9” (10 cm) Maximum: 12.2” (31 cm)
Detectors Height – Horizontal 0° Planar Travel Range – Horizontal Upright Planar Travel Range – Vertical 180° Planar Detectors facing in Detectors facing out (high) Detectors facing out (low) Travel Range	 43.3” (110 cm) max 14.2” (36 cm) 40.9” (104 cm) max 8.0” (20.4 cm) 24.6” – 45.9” (62.5 – 116.5 cm) 24.6” – 60.0” (62.5 – 152.5 cm) 16.7” – 45.7” (42.5 – 116.0 cm) 13.8” (35cm) - detectors facing out
Lateral Motion Speed	11.8” or 27.6”/min (30 or 70 cm/min)

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Patient Table

A dual-axis path-through-gantry table is used for planar, whole body, and tomographic applications, allowing the operator to adjust patient position in two motions relative to the gantry longitudinal and vertical.

- The whole body application is executed via a cantilevered tabletop with motorized translation for anterior and posterior scans.
- The table has a wide vertical travel range, which facilitates patient loading via handset control.
- The tabletop is composed of low attenuation carbon fiber covered by mattress pad/straps. It is designed to maximize patient comfort.
- The table allows controlled, accurate patient positioning during acquisition setup, as well as manual emergency egress of the patient before or during the scan.
- The table's mobile design enables easy swiveling of the table away from the gantry on a pivot point at the rear. This makes it easy to image seated and stretcher patients, as well as perform dual-collimator exchange.
- The table is firmly locked to the floor with locking pins and floor plates.
- Optional table accessories include a head holder, a table extender, an armrest, PediaScan™ pediatric scanning pallet, and mattress pad/straps.

TABLE DIMENSIONS	DATA
Table Weight	400 kg (880 lb)
Maximum Load Capacity	200 kg (440 lb)
Maximum Scan Length	76.7" (195 cm)
Tabletop Width	13.8" (35 cm)
Tabletop Thickness	0.5" (1.2 cm)
Minimum pallet Height at center	22.3" (56.7 cm)
Maximum pallet Height at center	34.1" (86.7 cm)
Vertical Speed (handheld controller)	59"/min (150 cm/min)
Horizontal Speed (handheld controller)	39.4" or 18.1"/min (100 or 300 cm/min)

Infinia Acquisition Station

The Infinia acquisition station is a Pentium™ IV based PC, running an industry-standard Windows operating system with an icon-based graphical user interface that is shared with the new Xeleris workstation. Data acquisition may be performed in any of the following imaging modes: Static, Dynamic, Multi-Gated, Whole Body Scanning, SPECT, and Gated SPECT.

System Components:

The Infinia acquisition station is comprised of the following main components:

- High performance Pentium IV–based PC, with a real-time multi-task operating system
- 1 GB RAM
- Offers choice of optional monitors, including both LCD and CRT models – to be ordered separately
- 80 GB hard drive
- Universal connectivity via DICOM 3.0 (as per DICOM conformance statement) and Interfile 3.3 TCP/IP-based protocols
- Comprehensive Operator's documentation and manual.

System Operation:

Infinia acquisition station features the interactive GE Common User Interface (CUI) for initiation and control of all imaging functions. Images, protocols, reports and menus are displayed within graphical windows, or as icons on the desktop. Each application is activated via its own unique icon. The user interface is common to Xeleris and Infinia.

Acquisition software includes control of camera maintenance activities including:

- Disk space management
- Pulse Height Analysis (PHA)
- Center of Rotation (COR)
- Uniformity Correction Maps
- Energy, sensitivity, and linearity maps
- Daily/weekly QC including gantry calibrations
- Customizable system parameters
- Definition and setup of acquisition sequences
- Use of preset acquisition protocols

The Acquisition console allows networking to both local and wide area networks. Data acquired on Infinia is transferred to Xeleris Processing & Review workstations for processing, archiving and hardcopy.

Acquisition System Features:

- Pre-defined or user-configurable protocols for rapid recall and setup

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- On-the-fly digital linearity, energy and uniformity corrections
- Energy spectrum histogram (PHA) display with 16 windows per detector. Ensures acquisition into correct energy window for given isotope(s)
- Acquisition termination by preset time, preset count or manual stop
- Pan/zoom Feature
- Rotate mode
- Ability to resume paused acquisitions for Whole Body, SPECT, and gated SPECT

Acquisition Types:

Static Acquisition
Single frame image (word mode): 32^2, 64^2, 128^2, 256^2, 512^2

Dynamic Acquisition
- Word mode, single or dual isotope imaging
- Frame sizes: 256^2, 128^2, 64^2, 32^2
- Maximum frame rate: 50 frames/sec

Whole Body Scanning
- Infrared-based real-time Automatic Body Contouring (ABC) system
- Sequential multi-spot scanning mode
- Simultaneous dual view of anterior/posterior scans
- Image Matrix: 256 x 1024

Multi-Gated Acquisition
- Equi-time and equi-phase gating modes with real-time irregular beat rejection
- ECG display during acquisition
- On-line R-to-R histogram display
- Multi-gated Acquisition Capacity
- 8, 16, 24, 32, or 64 Frames per cycle

SPECT Acquisition
- Infrared-based real-time Automatic Body Contouring (ABC) system
- Step and shoot acquisition (2°, 3°, 4°, 5°, 6°, 9°, 12°, 15°, 18°, 20°, 30°, 36°, 45°, 60°, 90° angular view resolution) 90° detector geometry cardiac SPECT
- Either 90° or 180° detector geometries for cardiac SPECT
- Matrix size: 64 x 64, 128 x 128
- FDG in single photon mode (Infinia^{VC} and Infinia^{VC} Hawkeye only)
- DISA, dual isotope simultaneous acquisition, of Tc-99m (MIBI) and F-18(FDG) (Infinia^{VC} and Infinia^{VC} Hawkeye models)

Gated SPECT Acquisition
- Gated tomography with real-time irregular beat rejection
- An extra bin sums all data, both accepted and rejected
- Number of frames per R-R interval may vary between 4,8,12,16,24,32

Optional CoDe Acquisition
- Slip-ring gantry for continuous orbiting
- 2-D Imaging with high-energy septa collimators
- On-line iterative reconstruction
- Image Matrix: 128 x 128
- Optional Hawkeye for AC

Display:
- 1280 x 1024 true-color display
- Simultaneous display of multiple independent color tables per screen via multiple windows
- Threshold and windowing control in multiple window settings
- Cinematic display of dynamic and all multi-frame datasets
- On-line, live display of acquired data and imaging parameters

Data Storage:

80 GB Standard fixed disk data storage.

Processing and Connectivity

Datasets acquired on the Infinia Acquisition System are processed on the Xeleris Processing & Review station. Data is sent from Infinia Acquisition to Xeleris P&R, DICOM 3.0 standard. Detailed specifications are provided in the Xeleris product datasheet

Ignite™

When the Infinia acquisition system is partnered with the Xeleris P&R workstation, the exclusive Ignite feature reduces selected nuclear medicine studies to 3 simple steps: Select patient in worklist, set up patient and utilize auto-home positioning, and then one click to begin acquisition of scan and automatic processing of results on Xeleris.

Hawkeye™ CT Technology

The Hawkeye feature is a fully integrated CT system that acquires X-ray transmission data, which is registered with the nuclear emission data. The Hawkeye feature is available as field upgrade for the Infinia and Infinia^{VC} systems. Detailed technical

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specifications are provided in the "Hawkeye for Infinia" Product Datasheet.

CoDe™ Camera-based PET Option

The optional CoDe feature enables camera-based PET imaging via a coincidence detection mode. This option is available with **Infinia^{VC}** systems, which provides 1" crystals and 95 PMTs for optimal positron emission imaging. The CoDe option is further enhanced when combined with the Hawkeye CT option as well to provide attenuation correction and anatomic localization. Detailed technical specifications are provided within the CoDe datasheet.

Real-Time Auto-Body Contouring

Infrared-based real-time automatic body contouring (ABC) for 90° and 180° SPECT, as well as Whole Body studies, enhances scanning resolution and consistency by minimizing the distance between detector and patient.

Other Optional & Accessory Items

- Fixed Head Holder - for Hawkeye head & neck scans
- Adjustable Head Holder - for brain scans
- Internal R-Wave Trigger
- External R-Wave Trigger with ECG chart recorder
- Mobile PC Cart - for Infinia acquisition station
- QA Bar Phantom
- Rectangular Co-57 Flood*
  ** A Site License must be obtained for this accessory*
- Table Leg Extenders
- Butterfly Arm Support – optimized for cardiac SPECT studies
- PediaScan™ - Pediatric scanning device
- 17" LCD Flat Panel Monitor – for Infinia acquisition station
- 17" CRT Monitor – for Infinia acquisition station
- 17" LCD Persistence Display Kit – (mounts on the gantry display arm) Includes monitor, base for connecting to gantry display arm, and 15 m cable set (standard on **Infinia Hawkeye** and **Infinia^{VC} Hawkeye**; optional for **Infinia** and **Infinia^{VC}** systems)

Power Requirements

Power conditioning is incorporated into the primary power supply of the system. The system can operate on line voltage based on local conditions and codes.
Power consumption is 4.2 kVA.
Maximum load (current):
American Standard: 3-phase delta, 208 V_{AC} ± 10%, 50/60 Hz.
European Standard: 3-phase star, 400 V_{AC} ± 10%, 50/60 Hz

Room Layout

Minimum Room Layout:
12'8" x 18'0" (3.86 m x 5.49 m)
Typical Room Layout:
13'2" x 19'8" (4.00 m x 6.00 m)

These configurations meet clearance requirements under U.S. Federal Regulations and National Standards: 29 CFR 1910 (OSHA), NFPA 70E (Standard for Electrical Safety in the Workspace), and NFPA 101 (Life Safety Code). Specific room layouts are also subject to local and regulatory requirements.

Environment

Recommended operating temperature range: 20° - 25° C (68° - 77°F)
Maximum temperature gradient:
3° C (5.4° F) per hour
Humidity: 40% - 70% non-condensing

Certification

This product is certified to meet all applicable CSA, IEC and UL requirements. It is also CE marked. GE Medical Systems has been certified to be ISO-9001 compliant.

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Infinia Features Summary

SUBSYSTEM	KEY FEATURE	USER/PATIENT BENEFIT
ELITE™ DETECTORS	2 rectangular Elite digital detectors featuring real-time corrections for sensitivity, linearity, energy, isotope decay, and COR	High resolution large FOV detectors with excellent image quality, Featuring long-term stability
	Hawkeye integrated CT Option	Accurate attenuation correction and lesion localization for all applications .
	540 x 400 mm UFOV	Maximal anatomical coverage for high scanning efficiency
	3/8"- Shielded for 40 - 511 keV energy range	Excellent performance over broad range of isotope studies
	1" – Shielded for 40-681 keV energy range	Excellent performance over all low, medium, and high energy isotope studies
	1" Etched detector with 95 PMTs (on **Infinia**^{VC} and **Infinia**^{VC} **Hawkeye** systems)	High performance, high energy imaging without compromising low and medium energy image quality also provides DISA and Camera-based PET imaging
GANTRY	Real-Time Automatic Body Contouring	Automatically follows the contour of the patient for both SPECT and whole body imaging, thereby maintaining minimal patient-to-detector distance for high resolution images; minimizes time to position patients
	Shaped detectors for 90° geometry	Shaped detector edges fit together tightly during 90° cardiac mode, reducing dead angle for high sensitivity and resolution
	Secured position on floor	Gantry does not move on rails, providing for mechanical stability and improved reliability; reduces tripping hazards
	Tomographic slip ring	High throughput due to quick patient setup; eliminates need to reset gantry after each acquisition with continuous gantry rotations in one direction , no cable tangling
	Automatic study "Home" positions	Ease of use and quick patient setup with factory definitions of gantry and table settings for: collimator exchange, 180° SPECT, 180° Brain SPECT, 180° Whole Body, Vertical orientation facing out, 90° Cardiac SPECT, 90° SPECT Spine, Hospital Stretcher.
	Externally mounted dual detectors	Patient friendly; ease and speed of patient positioning
	Emergency Stop buttons	Stops all gantry/table motions upon emergency for patient safety
	Motorized radial detector movement in 90° position	Highly flexible patient positioning for cardiac imaging; COR stability and reproducibility
	Free geometry capability of various 0°, 90°, and 180° configurations	High throughput configurations for cardiac SPECT and whole body imaging, as well as providing flexibility of a single-head camera
	Flexible detectors positioning including upright standing or seated patients and hospital bed scanning	Maximum clinical utility including "single-head positioning flexibility"
	Optional gantry-mounted 17" LCD Persistence Display monitor	Technologist productivity; enhanced ease and speed of study set-up; valuable for Hawkeye studies

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Infinia Features Summary

SUBSYSTEM	KEY FEATURE	USER/PATIENT BENEFIT
COLLIMATION	Collision sensitive pads	Pressure sensitive pads detect collisions greater than 4.4 lb (2 kg) and automatically halt detector/table motions for patient safety
	High Precision Collimators	Maintain excellent image quality in all applications
	Collimator storage/exchange device combined	Productivity, ease of use and safety; both collimators removed/replaced during one exchange session
DUAL AXIS IMAGING TABLE	Single table for all types of studies	Ease of use and productivity for both whole body and SPECT procedures without changing table positions
	Patient weight load of up to 200 kg (440 lb.)	Productivity: Accommodates greater than 97% of population
	Tabletop longitudinal travel accommodates 6'5" (195 cm) patient scan	Productivity: Accommodates greater than 97% of population
	Table vertical travel range: 22" - 33" (56.7 - 85 cm)	Productivity: Ease of patient transfer from wheelchair or stretcher; well suited for geriatric and pediatric patients
	Mobile design pivots around rear floor pin	Study flexibility for seated and stretcher patients, as well as collimator exchange; reduces tripping hazards
	Curved, low attenuation carbon-fiber tabletop	Enhanced patient comfort on wide table reduces patient movement and, therefore, improved image quality
	Hand grips on sides and cradle release on rear of table	Productivity & safety : Ease of table positioning and fast patient egress (cradle release) in case of emergency
	Accommodates head holder	Fixed patient positioning for high quality brain SPECT studies
	Accommodates arm support	Provides additional patient support for comfort
	Accommodates tabletop extender	Ability to image taller patients in legs-in position
HANDHELD CONTROLLER	Icon-based design	Productivity : Ease of use for simpler patient setup
	Pole-mounted handheld controller on top of gantry	User can operate controller from either side of the gantry for flexibility; user can start exam without leaving the patient's side

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Infinia Features Summary

SUBSYSTEM	KEY FEATURE	USER/PATIENT BENEFIT
ACQUISITION STATION	CUI Graphical user interface with Xeleris workstation	Facilitates ease of use
	High-end PC running a real-time multi-tasking operating system	Greater productivity with multi-window, multi-tasking system
	Multi-tasking architecture - 32 bit processor coordinates operation of all sub-systems	Parallel operations allow simultaneous acquisition and display for greater productivity
	Performance with Xeleris workstation as fully-integrated workflow solution with Ignite™ technology	Excellent technology productivity for popular nuclear medicine studies
	Networks to Xeleris Processing & Review	Non-proprietary communication protocols; open system
DICOM CONNECTIVITY	Networks to DICOM-compliant systems	Communicates with other vendors DICOM-compliant workstations
	DICOM Modality Worklist	Productivity by streamlining patient admittance and scheduling

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Infinia and Infinia^{VC} Parallel Hole Collimators

DESCRIPTION	NAME	CATALOG NUMBER (a)	RECOM MENDED ISOTOPE	FIELD OF VIEW (mm) (b)	CALCULATED PENETRATION (%)	SYSTEM SENSITIVITY (cpm/µCi) @100 mm 3/8” / 1” Per Detector (c)	SYSTEM SENSITIVITY (cps/MBq) @100 mm 3/8” / 1” Per Detector (c)	SYSTEM RESOLUTION FWHM (mm) @100mm 3/8” / 1” (d)	TYPE OF HOLE	HOLE DIAMETER (mm)	SEPTAL THICKNESS (mm)	HOLE LENGTH (mm)	# OF HOLES	WEIGHT (kg / lb) 1pcs
Low Energy High Resolution	LEHR	H2505TJ	Tl-201 / Tc99m Studies	540 x 400	0.3 (Tc99m)	160 / 171(Tc99m)	72 / 77	7.4 / 8.1	hex	1.5	0.2	35	86300	60 / 132
Low Energy General Purpose	LEGP	H2505TH	Tl-201 / Tc99m Studies	540 x 400	0.8 (Tc99m)	270 / 290(Tc99m)	121 / 130	9.0 / 9.8	hex	1.9	0.2	35	56560	50 / 110
Extended Low Energy General Purpose	ELEGP	H2505TR	I-123 / Kr-81 Studies	540 x 400	0.3 (I123) 2.3 (Kr81)	320 / 344 (Tc99m) 224 / 245 (I123)	144 / 155 (Tc99m) 101 / 110 (I123)	10.3 / 11.2	hex	2.5	0.4	40	31000	62 / 136
Medium Energy General Purpose	MEGP	H2505TK	Ga-67 / In-111 studies	540 x 400	2.0 (Ga67)	144 / 163 (Ga67)	65 / 73	9.4 / 11.5	hex	3.0	1.05	58	15210	103 / 227
High Energy General Purpose	HEGP	H2505TL	I-131 studies	540 x 400	2.0 (I131)	97 / 160 (I131)	43 / 72	12.0 / 13.0	hex	4.0	1.8	66	7410	131 / 289
Ultra High Energy High Resolution	UHEHR	H2505TP	Tc99m and F-18 studies	540 x 400	0.1 @ Tc99m 4.1 @ F-18	For 1” detector 57 @ Tc99m 150 @ F-18	For 1” detector 25 @ Tc99m 67 @ F-18	For 1” detector 8.6 @ Tc99m 11.8 @ F-18	hex	3.0	1.9	80	7790	171 / 376

(a) Catalog numbers include 2 collimators for changing and storage.
(b) Value quoted is the collimator field of view.
(c) The values quoted are with an appropriate isotope for each collimator (with a 20% window for all collimators). Sensitivity is measured with a tolerance of ±10%.
(d) Tolerance of ±4% on resolution.

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Infinia®

3/8” or 1” Free-Geometry Dual-Detector Cameras
Optional Hawkeye® Hybrid NM/CT

Infinia and Infinia^{VC} Pinhole collimator

Description	Name	Catalog Number	RECOMMENDED APPLI-CATION / ISOTOPE	Field of view (mm)	Weight (kg/lb)	Insert hole radius (mm)	System sensitivity, [cpm/µCi], @100 mm (b) 3/8'' / 1'' Tc99m	System sensitivity, [cps/MBq], @100 mm (b) 3/8'' / 1'' Tc99m	System Resolution , FWHM (mm) @ 100 mm (b) 3/8'' / 1'' Tc99m
General Purpose Pin Hole (3 inserts)	GPPH(a)	H2505TM	Thyroid / Tc99m, I123, I131	200 diameter	98/216-1 pcs. 169/370-2 pcs.	2	43 / 47	19 / 21	3.8 / 4.5
						4.45	206 / 222	93 / 100	6.5 / 7.7
						8	600 / 645	270 / 290	11.4 / 13.5

(a) Catalog number includes only one collimator for changing and storage.
(b) Sensitivity is measured with Co57 (point source@100mm from insert center with PSD cover, 20% window) and extrapolated for Tc99m. Sensitivity is measured with a tolerance of ±10%. Tolerance of ±4% on resolution.

Infinia and Infinia^{VC} Fan Beam Collimator

The optional Fan Beam collimator allows enhanced magnified imaging, particularly useful in brain studies.

DESCRIPTION	NAME	CATALOG NUMBER (a)	RECOMMENDED APPLI-CATION / ISOTOPE	FIELD OF VIEW (mm) @ (b)	CALCULATED PENETRATION (%)	TYPE OF HOLE	HOLE DIAMETER (mm)	SEPTAL THICKNESS (mm)	HOLE LENGTH (mm)	Volume sensitivity (c) 3/8'' / 1''	ECT resolution 3/8'' / 1''	# OF HOLES	Weight (kg/lb) 1pcs
Fan Beam	Fan Beam	H2505TN	Brain / Tc99m	540*250	0.1 (Tc99m)	hex	1.5	0.2	40	39,960 / 41,960 [cpm / µCi / cm2] 18,000 / 18,900 [cps / MBq / cm2]	Central 8.0 / 8.2mm Peripheral Radial 8.5 / 8.7mm Peripheral Tangential 6.7 / 7.0 mm	53000	64 / 140

(a) Catalog number includes 2 collimators for changing and storage.
(b) Value quoted is the collimator field of view.
(c) Measured for two heads with Tc99m with 15% window.
d) In case of brain imaging the recommended detector radius is 14 -16 cm.
e) The Focal Distance is 350 mm (from collimator plane).

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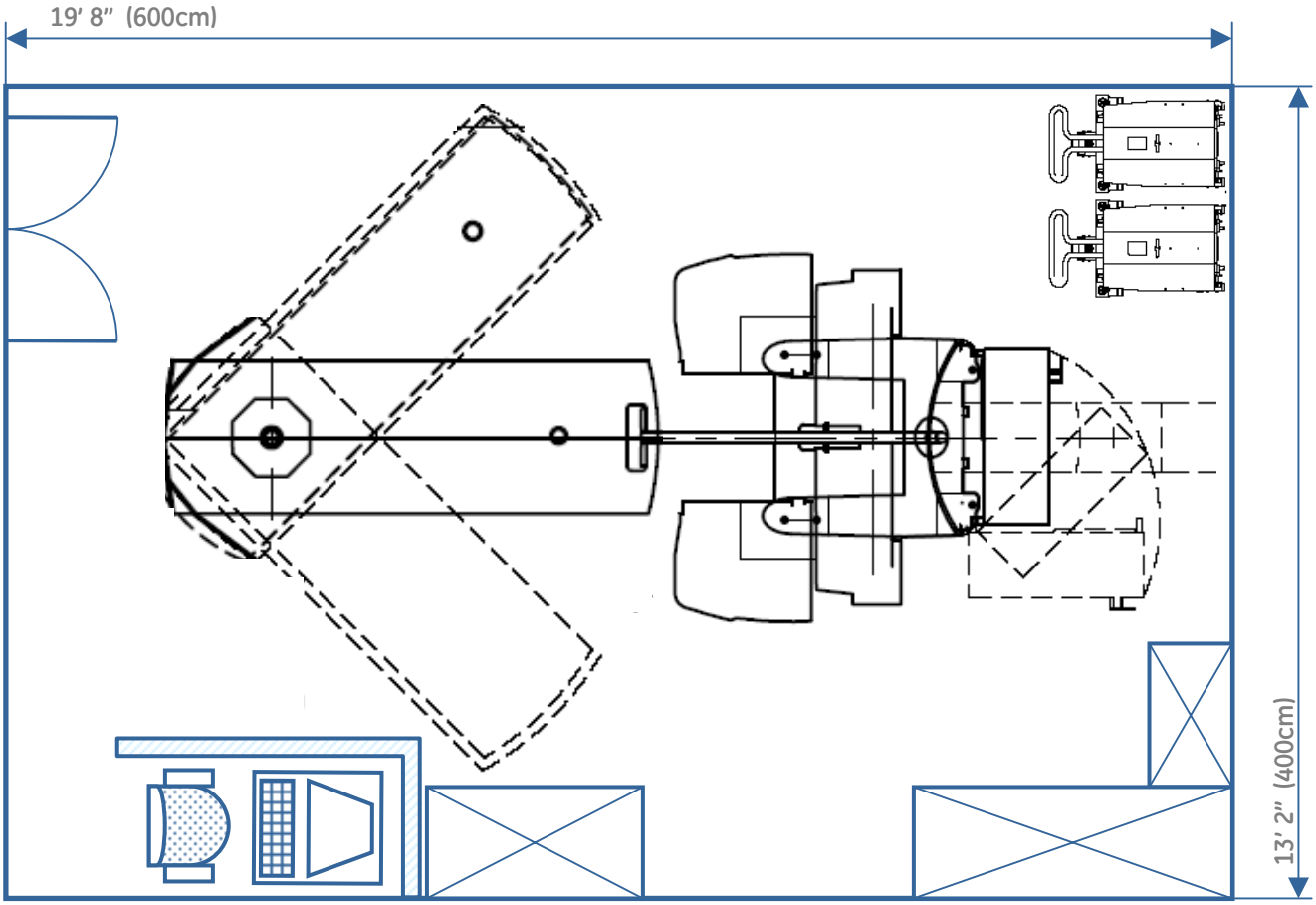
Infinia® Typical Room Layout – 13’2” x 19’8” (4.0 m x 6.0 m)



Both the above drawing and the minimum room layout (12’8” x 18’0” / 3.86 m x 5.49 m) meet clearance requirements under U.S. Federal Regulations and National Standards: 29 CFR 1910 (OSHA), NFPA 70E (Standard for Electrical Safety in the Workspace), and NFPA 101 (Life Safety Code). Specific room layouts are also subject to local and regulatory requirements.