Bringing the power of imaging to your patient

Portable full body 32-slice CT scanner

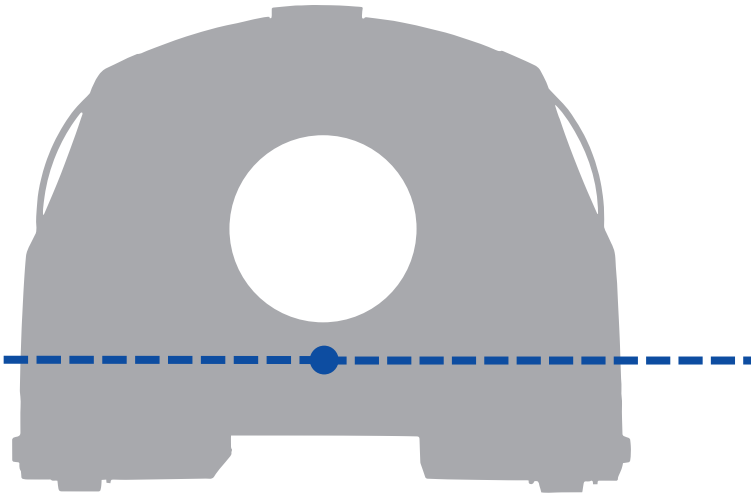
BodyTom®

NeuroLogica

A Subsidiary of Samsung Electronics Co., Ltd

Point-of-care CT imaging

Your *multi-departmental* imaging solution



Orthopedic surgery

- Arthroplasty
- Musculoskeletal disorders
- Hip replacement
- Acetabular fracture
- Knee replacement
- Fractured femur
- Pelvis
- Pediatric orthopedic procedures

Neurosurgery

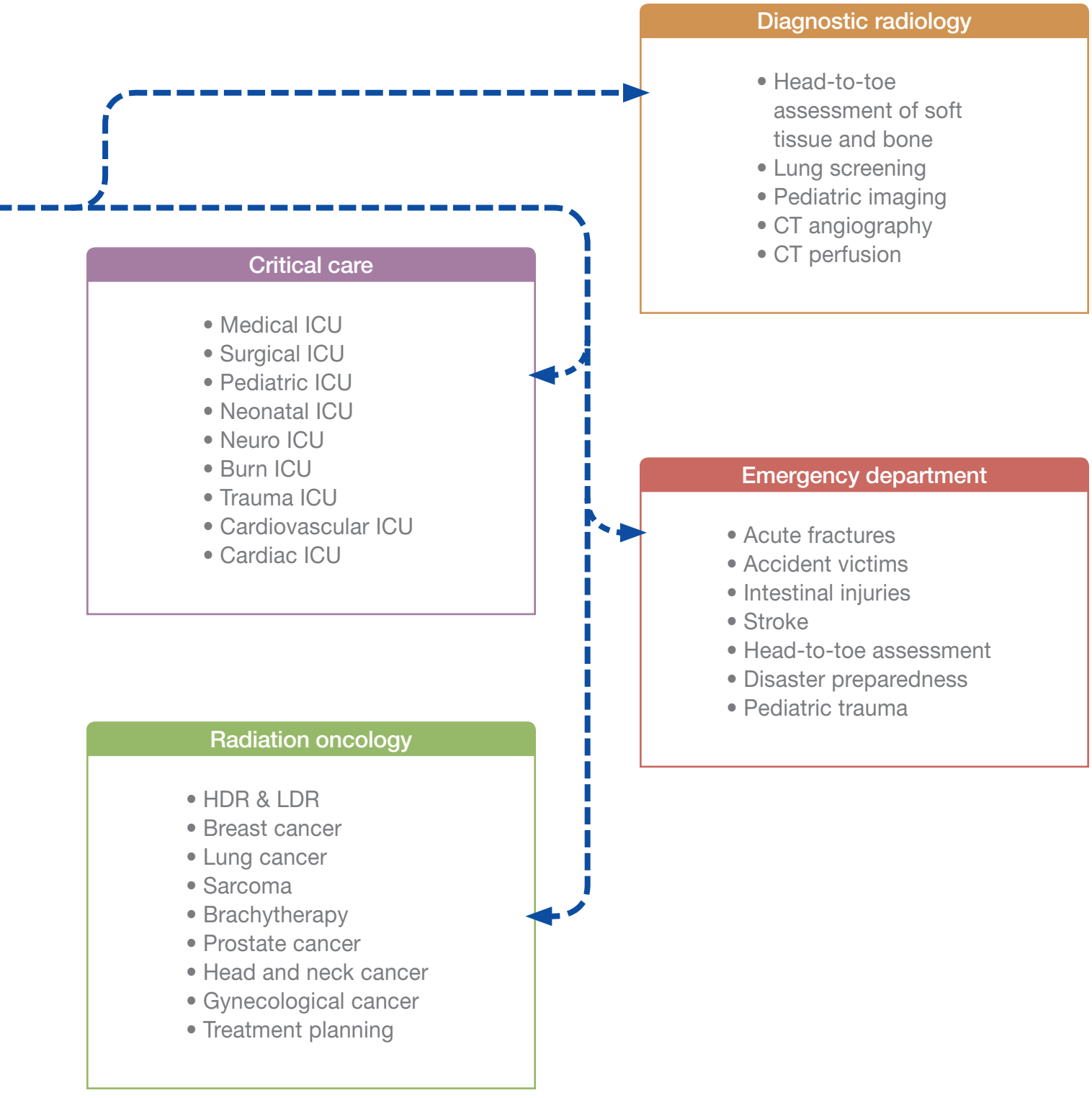
- Tumor resection
- Neurovascular surgery
- Functional and stereotactic neurosurgery
- Pediatric neurosurgery

Spine surgery

- Neuromuscular scoliosis
- Cervical, thoracic and lumbar fusions
- Laminoplasty
- Laminectomy
- Vertebroplasty
- Kyphoplasty
- Pediatric spine surgery

Trauma surgery

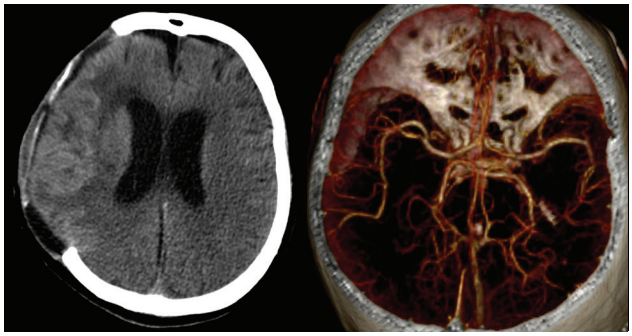
- Acute fracture care
- Accident victims
- Intestinal injuries
- Head-to-toe assessment
- Pediatric trauma surgery


Diagnostic radiology
• Head-to-toe assessment of soft tissue and bone
• Lung screening
• Pediatric imaging
• CT angiography
• CT perfusion
Critical care
• Medical ICU
• Surgical ICU
• Pediatric ICU
• Neonatal ICU
• Neuro ICU
• Burn ICU
• Trauma ICU
• Cardiovascular ICU
• Cardiac ICU
Emergency department
• Acute fractures
• Accident victims
• Intestinal injuries
• Stroke
• Head-to-toe assessment
• Disaster preparedness
• Pediatric trauma
Radiation oncology
• HDR & LDR
• Breast cancer
• Lung cancer
• Sarcoma
• Brachytherapy
• Prostate cancer
• Head and neck cancer
• Gynecological cancer
• Treatment planning

Intraoperative applications

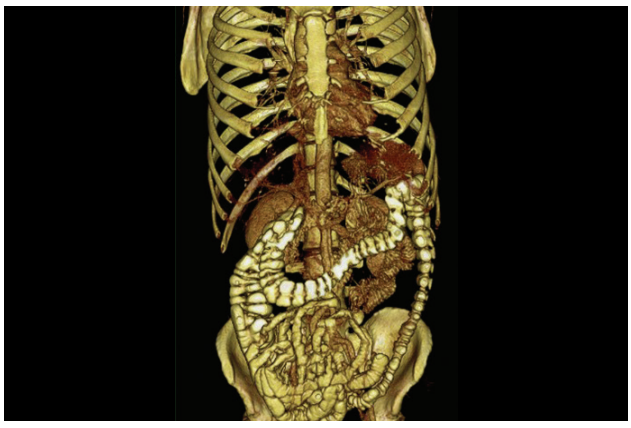
Cranial neurosurgery

The BodyTom portable CT, combined with any radiolucent skull fixation device, will transform the operating room into an intraoperative neuro-imaging suite. BodyTom is compatible with surgical navigation and planning systems and provides affordable high quality imaging, enhancing neuro-navigation and surgical outcomes.



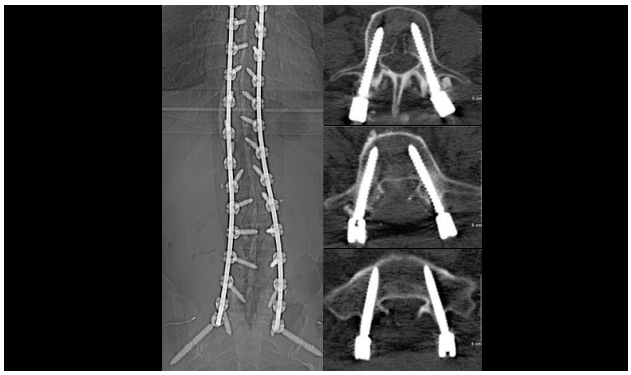
Trauma surgery

Rapid triage and management of patients with acute injuries are key elements to trauma care. The BodyTom portable CT scanner is a complete scanning tool for all emergencies. The unique combination of internal lead shielding and cutting-edge on-board battery system allows any standard trauma bay to be transformed into an advanced CT imaging suite. Such flexibility makes the BodyTom your perfect head-to-toe trauma CT imaging solution.



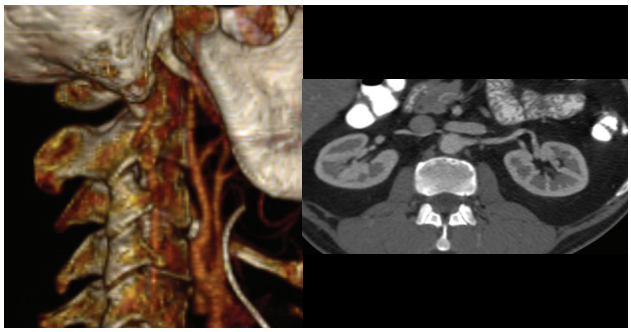
Spinal neurosurgery

An 85 cm gantry and 60 cm field of view allows BodyTom to transform any operating room into an intraoperative spine imaging suite. The BodyTom is compatible with surgical navigation and planning systems and is capable of imaging the entire spine from C1 to S5 in a single pass, providing high quality 3D images of both bone and soft tissue.



Orthopedic surgery

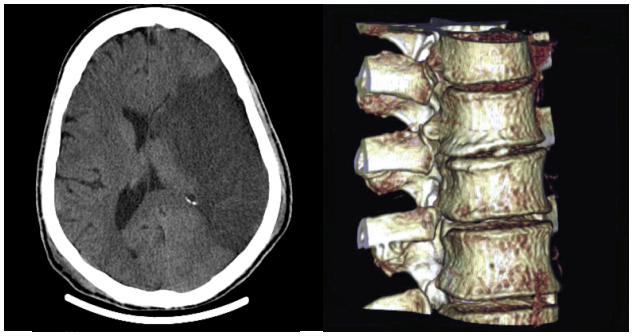
The ability to perform high quality CT scans in an operating room can dramatically improve both efficiency of care and patient safety. Its internal drive system enables the BodyTom to be moved between operating rooms, providing necessary scans of critically ill patients. With the BodyTom, any standard operating room can be temporarily or permanently converted into an advanced imaging suite without the expensive build-out costs associated with installing a fixed CT scanner.



Other clinical applications

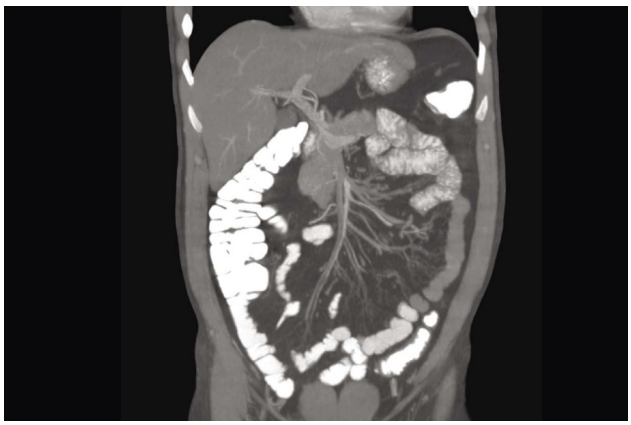
Critical care

The ability to perform high quality CT scans in an ICU can dramatically improve both efficiency of care and patient safety. Its internal drive system enables the BodyTom to be moved throughout the ICU, providing necessary scans of critically ill patients. With the BodyTom, any standard ICU room can be temporarily or permanently converted into an advanced imaging suite without the expensive build-out cost associated with installing a fixed CT scanner.



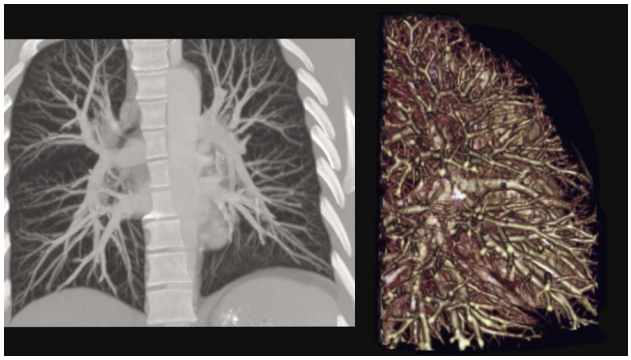
Emergency department

Rapid triage and management of patients with acute injuries are key elements to emergency care. The BodyTom portable CT scanner is a complete scanning tool for emergencies. The unique combination of internal lead shielding and an cutting-edge on-board battery system allows any standard emergency department to be transformed into an advanced CT imaging suite. Such flexibility makes the BodyTom your perfect head-to-toe CT imaging solution for emergency care.



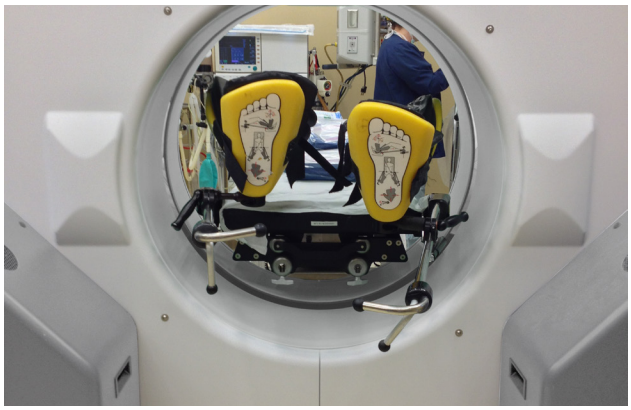
Diagnostic radiology

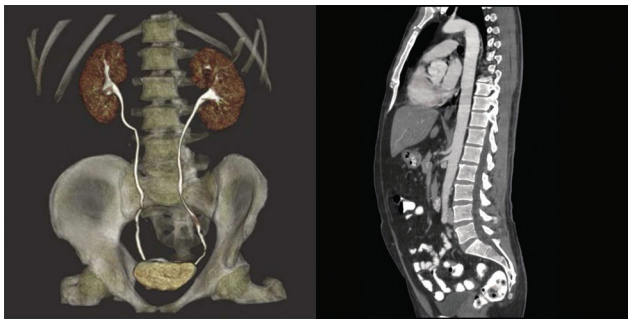
The large bore BodyTom portable 32-slice CT scanner with an 85 cm gantry and a 60 cm field of view accommodates the vast majority of patients and provides high quality images of both soft tissue and bone for accurate diagnosis. The DICOM 3.1 compliant images are immediately shared with hospital information systems for expedited patient care. The portability and seamless integration eliminates the expensive build-out cost and makes the BodyTom an affordable primary or backup CT solution for any modern radiology department.



Radiation oncology

CT scans from the BodyTom can help radiation oncologists design treatments with a high level of accuracy, ensuring that tumors get the most effective dose while healthy surrounding tissue and organs are spared. The BodyTom is an ideal 3D imaging tool for use with HDR and brachytherapy applications. The affordability of the system enables you to turn any oncology treatment room into a high resolution imaging suite. Given that the BodyTom is a true CT, it can be a useful treatment planning modality.





Core system

Bodytom point-of-care portable CT scanner

BodyTom brings the power of innovative imaging to the bedside. As the world's first portable full body 32-slice CT scanner, BodyTom is capable of transforming any room into an advanced imaging suite.

Uniquely designed to accommodate patients of all sizes, BodyTom provides point-of-care CT imaging wherever high quality CT images are needed.

Bodytom portable imaging station

BodyTom's Portable Imaging Station has advanced visualization software allowing for 2D, 3D and MPR viewing. With its wireless communication capability, BodyTom easily integrates with hospital information systems, surgical navigation, and other technology platforms.

On-board lead shielding (optional) provides additional protection for the workstation operator.

Internal drive system

BodyTom's internal drive system allows a single operator to transport and setup the scanner anywhere it needs to go. Hospital corridors are easily navigated using the 130° wide-angle camera.

Safety

The BodyTom is designed with patient and staff safety in mind. The core system comes standard with internal lead shielding to help safeguard against unnecessary scatter exposure. Additional protection is provided by an optional lead shield mounted to the BodyTom imaging workstation.

More standard safety features

System control

- Meets ACR accreditation guidelines
- Key lockout feature
- Individual user log-in
- Preset scanning protocols
- QA phantom test & report
- Patient intercom system

Radiation safety

- Internal lead shielding in the gantry
- Lead shield mounted to workstation (optional)
- Protocols based on age/weight
- Dose reduction software available
- Structured dose reporting

Overview & specifications

Portability

- Easy to use, built-in drive system
- Internal lead shielding
- Battery powered
- Plugs into a standard wall outlet for charging
- Wide-angle drive camera
- Portable imaging station

Seamless integration

- DICOM 3.1 compliant
- Wireless communication
- Interfaces with PACS
- Health Information System (HIS)
- Radiology Information System (RIS)
- Integrating the Healthcare Enterprise (IHE)
- Interfaces with surgical navigation systems
- Dose check

Imaging

- 32 Slice x 1.25 mm = 4 cm aperture
- 85 cm gantry
- 60 cm FOV
- 1.25 mm, 2.5 mm, 5.0 mm, 10 mm slice thickness
- 512 X 512 image matrix
- Maximum scan length of 2 meters
- Scout scanning
- CT angiography
- CT perfusion
- 2D, 3D, and MPR viewing tools

Imaging station technical information

- 27” LCD | Monitor resolution: 2560 x 1440
- Genuine Windows® 7 Professional 64-Bit
- Processor: Intel Quad Core™ Xeon Processor
- 3.2 GHZ
- Memory: 8 GB
- Operating system hard drive: 500 GB
- Secondary storage: 1 TB

Scanning modes

- Axial
- Helical
- Dynamic

Training

- 8 Days of on-site training led by a NeuroLogica Clinical Applications Specialist
- All training CEUs are accredited by the ASRT
- Biomedical engineer and first responder training available

1 year all inclusive warranty

- Covers all parts and labor (x-ray tube included)
- 24-Hour telephone support 7 days per week
- On-site personnel and parts within 24 hours
- 100% warranty on all parts
- Required routine preventative maintenance
- Software updates (safety and/or specification)

Technical specifications

Installation requirements

Phase:	Single
Voltage:	90 - 264 VAC
Frequency:	47 - 63 Hz
Battery capacity:	Fully charged -12 hours (typical)
Typical usage:	120 V/20 A - 240 V/30 A (dedicated)
Noise:	60 dBA (1 meter distance from scanner bore) 65 dBA (scanner bore)

Site requirements

Operating temperature:	15 ˚C to 35 ˚C
Storage temperature:	-20 ˚C to 60 ˚C
Operating altitude:	0-3010 m (0-10,000 ft)
Operating humidity:	20 - 80 % non-condensing
Floor flatness:	<+/- 0.120 inch (3 mm) per ft

Geometry

Patient opening:	85 cm
Image field of view:	60 cm

X-ray generation

X-ray beam shape:	Cone beam
X-ray tube voltage:	80, 100, 120, 140 kV
X-ray tube current:	50 - 300 mA
Focal spot size:	Large: 1.2 mm x 1.4 mm Small: 0.7 mm x 0.8 mm
Power supply:	42 kW
Heat capacity:	3.5 MHU

X-ray detection

Detection system:	Solid-state detectors
Main Detectors:	32 rows

Safeguards

- Meets ACR accreditation tests for image quality and CTDI dose
- Dose display prior to scan
- Secure log-in
- Admin privileges needed to change protocol
- Excessive dose lockout
- Dose reporting/auditing

Dimensions

Weight: 3510 lbs (1592 kg)

Axial

Rotation time:	1 sec, 2 sec
Max. scan range:	900 mm (90 cm)
Coverage:	8 x 1.25 mm
Image reconstruction time:	16 images/sec

Helical

Rotation time:	1 sec
Max. scan range:	2,000 mm (200 cm)
Coverage:	32 x 1.25 mm
Max scan time:	60 sec
Helical scan pitch:	0.4, 0.8
Image reconstruction time:	16 images/sec

Dynamic

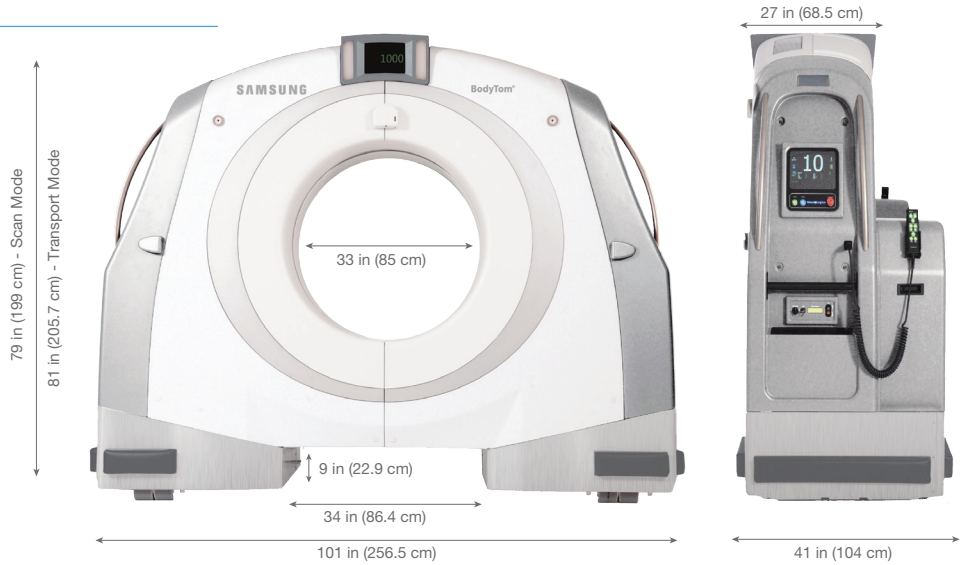
Rotation time:	1 sec
Scan coverage:	40 mm (4 cm)
Max scan time:	60 sec

Image quality

Noise STD:	Approx. 0.3%*
Low contrast detectability:	5 mm at 0.3%**
Spatial resolution:	Soft tissue kernel: 7.0 lp/cm @ 0 % MTF High resolution kernel: 17.0 lp/cm @ 0 % MTF
Reconstruction matrix:	512 x 512

Connectivity

- Gigabit ethernet/wireless (A/B/G/N)
- DICOM 3.1 compliant
- Compatible with surgical navigation, HIS, RIS, IHE, PACS



* Scan Protocol: 120 kV, 200 mA, 2 seconds; 5 mm slice thickness; PostFossa Kernel; 20 cm water phantom.
** Scan Protocol: 120 kV, 200 mA, 1 second; 10 mm slice thickness; Soft Tissue Kernel; CTP515 Catphan low contrast module.

About NeuroLogica

NeuroLogica, a subsidiary of Samsung Electronics Co., Ltd., brings the power of innovative imaging to your patients.

With a strong foundation of expertise in CT design, development and manufacturing, NeuroLogica transforms fixed CT technologies into portable platforms.

For more information

For more information about BodyTom®, visit www.NeuroLogica.com

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