North Carolina Department of Health and Human Services
Division of Health Service Regulation

Pat McCrory
Governor

Richard O. Brajer
Secretary DHHS

Mark Payne
Assistant Secretary for Audit and
Health Service Regulation

April 8, 2016

Dee Jay Zerman, Director, Regulatory Planning
James T. Hedrick Building
211 Friday Center Drive, Suite G015
Chapel Hill NC 27517

Exempt from Review – Replacement Equipment

Record #:	**1919**
Facility Name:	Rex Hospital
FID #:	953429
Business Name:	Rex Hospital, Inc.
Business #:	1549
Project Description:	Replace CT scanner
County:	Wake

Dear Ms. Zerman:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of April 1, 2016, the above referenced proposal is exempt from certificate of need review in accordance with G.S 131E-184(a)(7). Therefore, you may proceed to acquire, without a certificate of need, the Siemens CT scanner. This determination is based on your representations that the unit will be removed from North Carolina and will not be used again in the State without first obtaining a certificate of need.

Moreover, you need to contact the Agency's Acute and Home Care Licensure and Certification Sections to determine if they have any requirements for development of the proposed project.

It should be noted that the Agency's position is based solely on the facts represented by you and that any change in facts as represented would require further consideration by this office and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Michael J. McKillip
Project Analyst

Martha J. Frisone,
Assistant Chief, Certificate of Need

cc: Kelli Fisk, Program Assistant, Healthcare Planning, DHSR
Acute and Home Care Licensure and Certification Section, DHSR

REX
UNC HEALTH CARE

James T. Hedrick Building
211 Friday Center Drive, Suite G0
Chapel Hill, NC 27517

April 1, 2016

Michael J. McKillip, Project Analyst
Certificate of Need Section
Division of Health Service Regulation, DHHS
Mail Service Center 2704
Raleigh, NC 27699-2704

RE: Request for Exemption / Replacement of an existing CT scanner / Rex Hospital / Wake County

Dear Mr. McKillip:

Rex Hospital is planning to replace an existing CT scanner and is requesting a determination that the replacement of this equipment is exempt from review pursuant to NCGS §131E-184(7). The existing CT scanner is believed to have been placed into service by Rex around 2005, has been upgraded a few times, and remains in use. This machine is being replaced with higher state-of-the-art technology required by our patients.

We are supplying the following information that the CON Section has requested in the past as a part of its general information request for an equipment replacement exemption.

1. A comparison of the existing and replacement equipment, using the format in the following table:

Equipment Comparisons

	Existing Equipment	*Replacement Equipment*
Type of Equipment (List each component)	Brilliance 64 slice scanner	192 slice Force scanner
Manufacturer of Equipment	Phillips	Siemens
Tesla Rating for MRIs	N/A	N/A
Model Number	System: 4550100114011	Somatom Definition Force
Serial number	System: 9067	Not yet available
Provider's Method of Identifying Equipment	Stickers on back of gantry	By model & serial #s
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	Not applicable	Not applicable
Mobile Tractor Serial Number/VIN #	Not applicable	Not applicable
Date of Acquisition of Each Component	2005	Projected 2016
Does Provider Hold Title to Equipment or Have a Capital Lease?	Rex owns	Rex will own
Specify if Equipment Was/Is New or Used When Acquired	Used	Will be new

Total Capital Cost of Project (Including Construction, etc.)	Unknown	$1,735,000 no construction is required
Total Cost of Equipment	Unknown	$1,735,000
Fair Market Value of Equipment	Unknown	$1,735,000
Net Purchase Price of Equipment	Unknown	$1,735,000
Locations Where Operated	Rex Hospital	Rex Hospital
Number of Days In Use/To be Used in N.C. Per Year	365 days	365 days
% of Change in Patient Charges (by Procedure)	N/A	No change
% of Change in Per Procedure Operating Expenses (by Procedure)	N/A	No change
Type of Procedures Currently performed on Existing Equipment	Majority of CT procedures except cardiac CT are being performed on the scanner	N/A
Type of Procedures New Equipment is Capable of Performing	N/A	All CT procedures including advanced cardiac imaging will be performed

2. A description of the basic technology and functions of the existing and replacement equipment, including the diagnostic and treatment purposes for which the equipment is used or capable of being used.

Response: The machine to be replaced is a Brilliance 64 slice scanner. The original brochure, quote and purchase order are not available. Exhibit 1 contains a *similar* brochure existing Brilliance CT minus the cardiac application. Rex plans to replace this scanner with the Somatom Definition Force CT scanner. A copy of the Somatom Definition Force CT scanner brochure is contained in Exhibit 2. The current equipment and the replacement equipment will perform the same basic functions, which is the generation and processing of cross-sectional images of patients by computer reconstruction of x-ray transmission data. Diagnostic and treatment purposes are discussed in the attached brochures.

3. Brochures or letters from the vendors describing the capabilities of the existing equipment and the replacement equipment.

Response: A copy of a brochure for a *similar* Brilliance 64 slice CT scanner is attached as Exhibit 1 as the original purchase order, brochure, and quote are not available. A copy of a brochure from the vendor describing the proposed replacement Somatom Definition Force CT scanner is attached as Exhibit 2.

4. A copy of the purchase order for the existing equipment, including all components and original purchase price.

Response: A copy of the *similar* brochure is attached as Exhibit 1 as the original items are not available.

5. A copy of the title, if any, for the existing equipment or the capital lease for the existing equipment.

Response: Not applicable. The existing equipment does not have a title and is not leased.

6. If the replacement equipment is to be leased, a copy of the proposed lease that transfers substantially all the benefits and risks inherent in the ownership of the equipment to the lessee of the equipment, in accordance with criteria in Generally Accepted Accounting Principles (GAAP).

Response: Not applicable. The replacement equipment will not be leased.

7. If the replacement equipment is to be purchased, a copy of the proposed purchase order or quotation, including the amount of the purchase price before discounts and trade-in allowance.

Response: A copy of the quote received from Siemens for the replacement CT scanner is attached as Exhibit 3. No additional construction will be required to make the unit operational so the purchase price is the same as the total project cost.

8. A letter from the person taking possession of the existing equipment that acknowledges the existing equipment will be permanently removed from North Carolina, will no longer be exempt from requirements of the North Carolina Certificate of Need law, and will not be used in North Carolina without first obtaining a new certificate of need.

Response: See Exhibit 4 for verification from Siemens that the equipment will be removed from the state.

9. Documentation that the existing equipment is currently in use and has not been taken out of service.

Response: Rex currently has 5 CT scanners in use as identified on our most recent Licensure Renewal Application form. See Exhibit 5 for a copy of the page of the 2015 Licensure Renewal Application form pertaining to CT scanners.

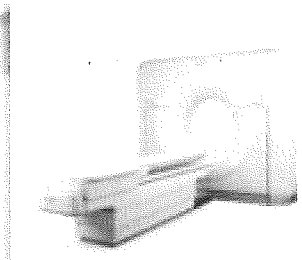
Please do not hesitate to contact me at 984-974-1210 if you need any additional information. Thank you for your prompt consideration of this matter.

Sincerely,

Dee Jay Zerman

Dee Jay Zerman, Director of Regulatory Planning
UNC HCS

Exhibit 1



Brilliance CT 64-channel configuration

with Essence technology

The Brilliance CT 64-channel configuration is designed to help you conduct the most advanced multislice CT studies possible. These systems enable you to achieve the highest level of performance in neurovascular studies, coronary artery imaging, pulmonary imaging and critical care. Expect new discoveries in routine studies and breakthroughs in clinical applications.

The unique Essence technology is at the core of the Brilliance CT 64-channel scanner. Consisting of industry exclusive X-ray tube, detector and reconstruction advancements to deliver optimal image quality, Essence technology provides the inherent design features that enable new levels of clinical performance.

PHILIPS

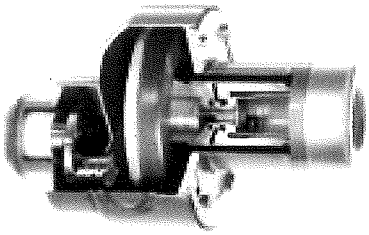
Essence technology

The Brilliance CT 64-channel scanner utilizes Essence technology to provide the image quality enhancements required by clinicians to support high levels of patient care. Essence technology is an optimal combination of X-ray tube, detector and reconstruction innovations.

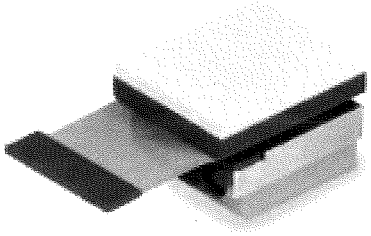
X-ray Tube Features	Clinical Value
Spiral Groove Bearing	Precise anode rotation stability for a virtually motion-free focal spot and for better image quality
Segmented Anode	12 individual anode segments compensate for heating and cooling cycles for higher reliability
Smart Focal Spot	Dynamic focal spot motion doubles the number of projections and improves in-plane spatial resolution

Nano-Panel Detector Features	Clinical Value
TACH 2 Detector Electronics	Second generation of TACH technology further reduces the electronic noise enabling improved image quality at low radiation doses
Ultra High Resolution (up to 24 Lp/cm spatial resolution)	High spatial resolution means better definition of small structures

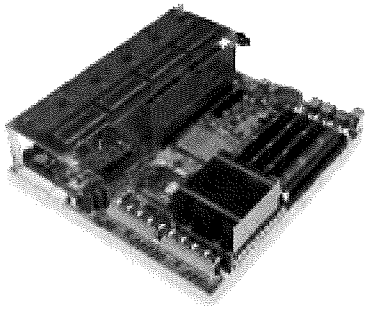
RapidView Reconstruction Features	Clinical Value
3D Cone Beam Reconstruction Algorithm (COBRA)	COBRA provides high image quality without cone beam artifacts
Adaptive Multicycle Reconstruction	Part of the Rate Response CV Toolkit for cardiac CT imaging, these features optimize every voxel for the optimal temporal resolution
Ultra High Resolution Matrices	768^2 and 1024^2 reconstruction matrices take advantage of high resolution imaging
Quad Core processors	Philips utilizes innovations in computer technology to continuously improve reconstruction performance



MRC X-ray Tube



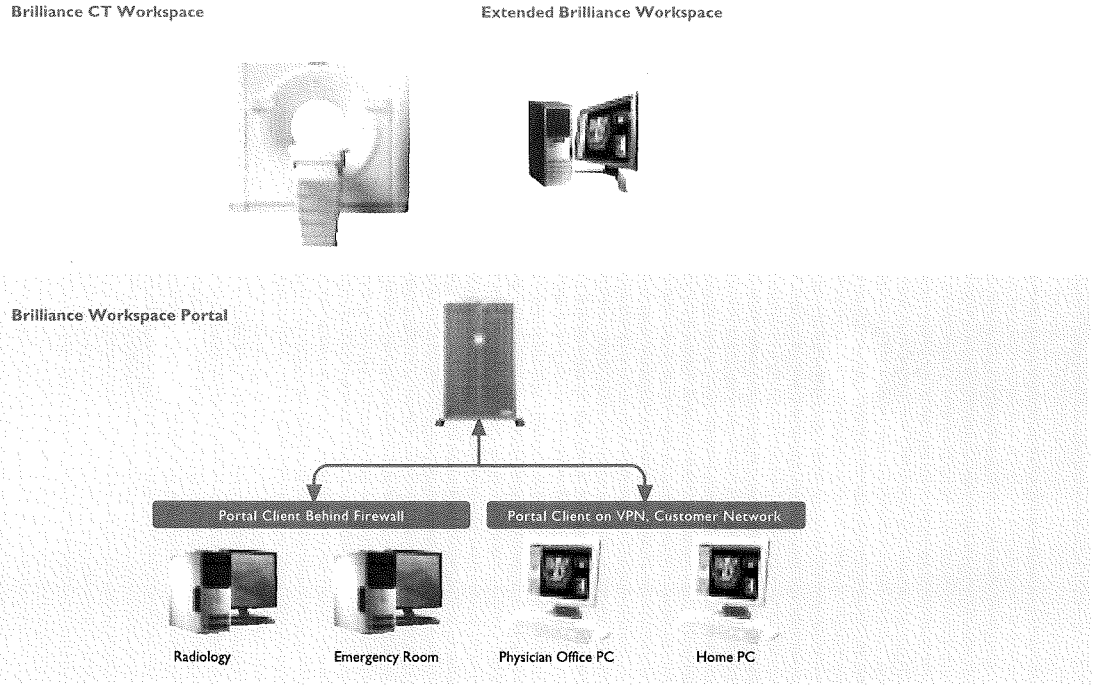
Nano-Panel Detectors



RapidView Reconstruction with Quad Core Processors

The CT user environment

Brilliance is a flexible, scalable CT work environment for planning, scanning, visualization, and archiving. The Brilliance Workspace offers a range of clinical applications at the scanner console. The Extended Brilliance Workspace* delivers advanced clinical applications to a dedicated PC. And finally, the Brilliance Workspace Portal* makes it possible for users to work efficiently with extremely large data sets from a typical laptop or home computer, wherever they are.



Console

The console runs Brilliance Workspace on a Dell PC with dual monitors (1,280 x 1,024 Flat Panel LCD each). An optional slave monitor can display the images from the main console at a remote location, such as the radiology reading room.

Standard Applications	Optional Applications
CT Viewer	Virtual Colonoscopy
MPR	AVA-Stenosis
SSD 3D	AVA-Stent Planning
MIP	CT Perfusion
Volume Rendering	Advanced Brain Perfusion
CT Endoscopy	Lung Nodule Assessment
Q-CTA	Lung Emphysema
Test Injection	CT Reporting
Combine Images	CT/MR Image
Scan Tools Pro:	Dental Planning
DICOM Modality Worklist	Cardiac Viewer
Split Study	Heartbeat-CS
Prefetch Study	Cardiac CT Angio
Automatic Procedure Selection	LV/RV Analysis
Bolus Tracking	EP Planning
Spiral Auto Start	Stereotaxis

* Optional

Gantry and table

Gantry

Feature	Specification
X-ray tube and Detectors Architecture	Third generation; Rotate-rotate
Rotation times	0.4*, 0.5, 0.75, 1, 1.5, 2 seconds for full 360° scans 0.28*, 0.33, seconds for partial angle 240° scans
Gantry aperture, mm	700mm
Intercom system	Two-way connection between the gantry and console areas
Gantry tilt, degrees	-30° to +30° with 0.5° increments
Controls located on Gantry (left and right, front and back)	Tilt, Couch In/Out, Couch Up/Down, Emergency Stop, X-Ray Indicator
Controls located at Operator's Console	Tilt, Couch In/Out, Couch Up/Down, Emergency Stop, X-Ray Indicator, Start Scan, Pause
Focus-detector distance	1040mm
Focus-isocenter distance	570mm

AutoVoice

A standard set of commands for patient communication before, during, and after scanning is available in the following languages:

- English
- French
- Spanish
- Italian
- Japanese
- Hebrew
- Arabic
- Russian
- Georgian
- Turkish
- German
- Danish
- Swedish

Customized messages can also be created.

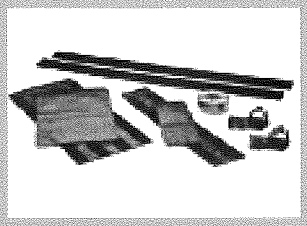
Patient Table

Feature	Specification
Vertical range, mm	578 to 1028mm with 1.0mm increment
Manual longitudinal stroke, mm	1900mm
Scannable range, mm	1750mm
Z-position accuracy	±0.25mm
Longitudinal speed, mm/s	0.5 – 143mm/s
Max Load Capacity with Accuracy, lb	450 lbs (204kg) with 0.25mm Z-axis accuracy 650 lbs (295kg) with 0.25mm Z-axis accuracy on Bariatric Patient Support*
Floating tabletop	Carbon-fiber table top with foot pedal and hand control for easy positioning and quick release.

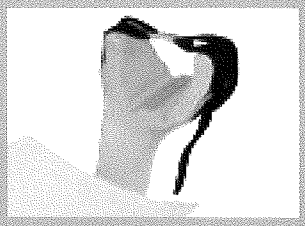
* Optional

Accessories

Standard Accessories



Patient restraint kit



Elevated head holder

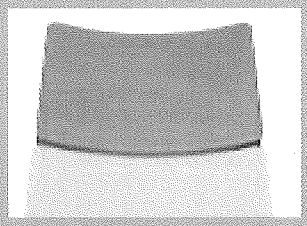
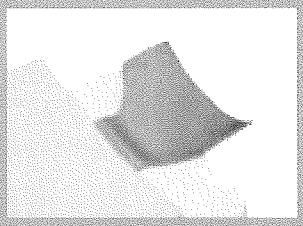


Table extension



Coronal head holder – supine

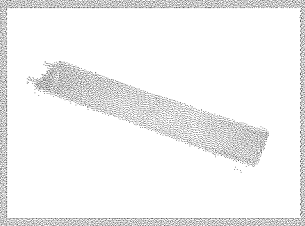
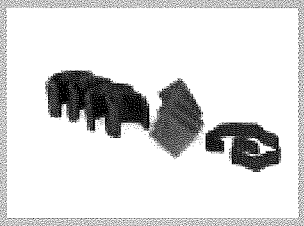
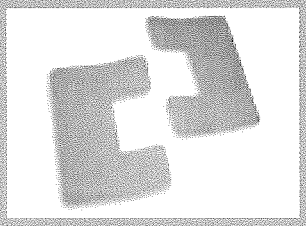


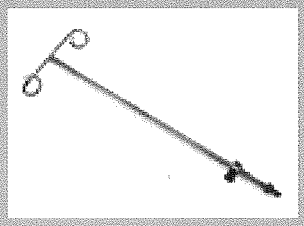
Table pad



Cushions and pads

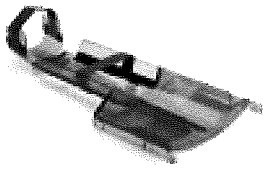


Arm rests



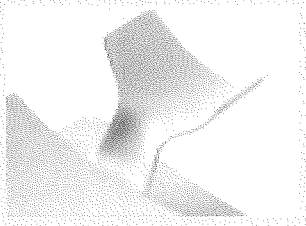
IV poles

Optional Accessories

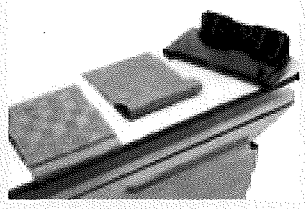


Infant cradle

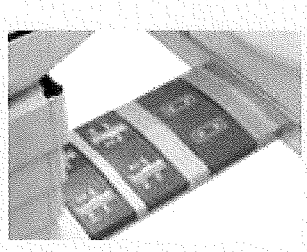
Therapy table top



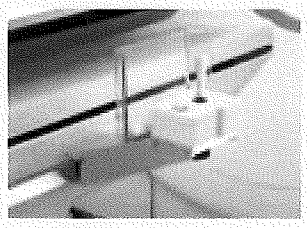
Flat head holder



Radiology Flat Top Kit



Load and unload foot pedals



Interventional couch controls

Scan and image acquisition

Generator

Feature	Specification
Output capacity	60 kW
kV	80, 120, 140 kVp
mA	20-500 mA; 1 mA increments

X-ray Tube

Feature	Specification
Anode storage capacity	8 MHU
Anode max cooling rate	1608 kHU/min
Focal spot (IEC)	Large: 1.0mm x 1.0mm Small: 0.5mm x 1.0mm
Anode diameter	200mm
Anode rotation speed	105 Hz (6300rpm)
Target angle	7°
Maximum On-Time (@ maximum power, 120kV, Large Focal Spot)	23 sec @ 500 mA

Detector

Feature	Specification
Material	Solid-State GOS with 43,008 elements
Dynamic range	1,000,000:1
Slip ring	Optical - 5.3 Gbps transfer rate
Data sampling rate	Up to 4640 views/revolution/element
Slice collimations available	64 x 0.625mm, 40 x 0.625 mm, 32 x 1.25mm, 16 x 2.5mm, 2 x 0.5mm
Slice thickness (Spiral mode)	0.55 - 7.5mm variable
Slice thickness (Axial mode)	0.5 - 12mm
Scan angles	240°, 360°, 420°
Scan field of view	250mm, 500mm

Image Quality

Feature	Specification			
Spatial Resolution	Cut-off	2%	10%	50%
Ultra High mode (lp/cm)	24.0	23	16	8
High mode (lp/cm)	16.0	15	12	6
Standard mode (lp/cm)	13.0	12	9	5
Noise	0.27% [120kVp, 250mAs, 10mm, 0.75 sec, 250mm FOV, UA Filter, 21.6cm water equivalent phantom]			
Low-contrast resolution	4.0mm @ 0.3% [120kVp, 250mAs, 10mm, 0.75 sec, 250mm FOV, UB Filter, 27mGy at surface of CATPHAN phantom]			
Absorption range	-1024 to +3072 Hounsfield units			

Scanning modes

Spiral Scanning

- Multiple contiguous slices acquired simultaneously with continuous table movement during scans
- Multiple, bidirectional acquisitions
- Spiral exposure: Up to 100 seconds
- Spiral pitch: 0.13 to 1.5 (user-selectable)

Axial Scanning

- Multiple-slice scan with up to 64 contiguous slices acquired simultaneously with incremental table movement between scans
- Fused modes for reconstructing thick slices from thin slice acquisitions

Clinical enhancements

Bolus Tracking

An automated injection planning technique to monitor actual contrast enhancement and initiate scanning at a predetermined level.

Spiral Auto Start (SAS)

Spiral Auto Start integrates the injector with the scanner, allowing the technologist to monitor the contrast injection and to start and stop the scan (with the predetermined delay) while in the scan room.

Rate Responsive CV Toolkit*

Enables cardiac imaging and includes an ECG monitor, Retrospective Tagging, Prospective Gating, the Cardiac Viewer, Heartbeat-CS and CT Reporting. Uses the Philips Adaptive Multicycle Reconstruction to optimize the temporal resolution.

Step & Shoot Cardiac*

Enables low dose, high quality cardiac CT imaging. This axial prospective ECG-gated acquisition technique achieves full heart coverage with sub-millimeter, isotropic resolution within a short breath-hold. Includes automatic arrhythmia detection and handling.

Heartbeat CS Pro*

Includes ECG Prospective Gating. The scanner automatically triggers axial multislice scan acquisitions using an ECG signal. Philips patented Beat-to-Beat Variable Delay Algorithm enables accurate and reproducible calcium scoring studies.

Continuous CT (CCT)*

This application provides visual guidance for interventional procedures using a foot pedal and a remote monitor. Exposures, taken once per rotation in either single or continuous mode, are limited to a 240 degree axial centered beneath the patient to shield the clinician's hands from direct X-ray exposure.

CT Fluoroscopy Package*

This application provides near real-time guidance for interventional procedures (up to 8 fps) using a foot pedal and a remote monitor. The Fluoro mode is particularly useful in complicated procedures involving breathing and abdomen motion.

Jog Scan*

Jog Scan provides up to 80mm of imaging area for perfusion studies. The scanner acquires two 40mm volumes of interest by translating the couch back and forth – doubling the standard perfusion coverage.

Pulmonary Toolkit*

Pulmonary Toolkit enables the user to trigger a scan at a particular breath level (axial and/or spiral prospective gating), minimizing artifacts caused by respiratory motion. This allows better chest imaging of patients who cannot hold their breath.

Pulmonary Toolkit Oncology*

Pulmonary Toolkit Oncology includes the Pulmonary Toolkit features plus Retrospective Spiral (4D CT). This feature results in the ability to generate multiple phases allowing for visualization of motion during the respiratory cycle and delineating a target volume.

*Optional

Clinical examples

Protocol	Collimation	Rotation (sec)	Pitch	Slice Width (mm)	Scan Coverage (mm)
Coronary CTA*	64x0.625	0.4	0.2	0.9	120
Brain Perfusion with Jog Scan*	32x1.25	0.5	-	10	80
CTA Runoff	64x0.625	0.75	0.9	2.0	1304
Step & Shoot Cardiac*	64x0.625	0.4	-	0.9	128

* Optional

Dose management

DoseWise is a philosophy, a set of principles and practices, focused on lowering radiation dose for patients and staff. Philips focuses on system design optimization, current (mA) optimization and increasing dosage awareness to reduce the cumulative risk of radiation while obtaining high-quality images.

DoseRight ACS (Automatic Current Selection)
Optimizes the dose for each patient based on the planned scan by suggesting the lowest possible mAs settings to maintain constant image quality at low dose throughout the exam.

DoseRight D-DOM (Dynamic Dose Modulation)
Automatically controls the tube current rotationally, increasing the signal over areas of higher attenuation (lateral) and decreasing signal over area of less attenuation (AP).

DoseRight Z-DOM (Longitudinal Dose Modulation)
Automatically controls the tube current, adjusting the signal along the length of the scan, increasing the signal over regions of higher attenuation (shoulders, pelvis) and decreasing the signal over regions of less attenuation (neck, legs).

Dedicated Pediatric Protocols
Developed in collaboration with top children's hospitals, Brilliance age and weight-based infant and pediatric protocols optimize image quality with low dose.

Dose Performance Data

CTDI vol	Measurement
Head	11.0 mGy / 100 mAs
Body	5.6 mGy / 100 mAs

Using IEC standard phantoms

Reconstruction

RapidView Reconstruction generates up to 20 images per second using a 512^2 matrix.

Reconstruction Field of View
- 50 to 500mm continuous
- 25 to 250mm (Ultra High mode)

Image Matrix
- 512^2, 768^2 and $1{,}024^2$

Cone Beam Reconstruction
Philips patented Cone Beam Reconstruction Algorithm (COBRA) enables true three-dimensional data acquisition and reconstruction in spiral scanning.

Adaptive Filtering
Adaptive filters reduce pattern noise (streaks) in non-homogenous bodies, improving overall image quality.

Adaptive Multicycle Reconstruction
(Part of Rate Responsive CV Toolkit*)
Image data can be prospectively gated or retrospectively tagged. COBRA automatically delivers the best temporal resolution possible (as low as 53mseconds).

Evolving Reconstruction
Real-time 256^2 matrix image reconstruction and display in step with spiral acquisition or off-line. Images can be modified for window width and level, zoom and pan prior to larger matrix reconstruction. At the end of the acquisition, all images are updated with the desired viewing settings.

Off-Line Reconstruction
Off-Line (batch) background image reconstruction of user-defined groups of raw data files with automatic image storage.

* Optional

Networking

The Brilliance CT supports 10/100/1000 Mbps (10/100/1000BaseT) network speeds. For optimal performance, Philips recommends a minimum of 100Mbps network speed (1Gbps preferred) and for the CT network to be segmented from the rest of the hospital network.

Archiving

The full implementation of the DICOM 3.0 communications protocol in the Brilliance Workspace allows connectivity to DICOM 3.0 compliant scanners, workstations, and printers; supports IHE requirements for DICOM Connectivity.

Type	Hard Drive	DVD RAM[1]	EOD[1]	CD
Capacity	292 GB	4.7 GB	9.1 GB	700 MB
Images	500,000[2]	15,000[3]	15,000[2]	1200[2]
Patients[4]	1,667	50	50	4

[1] Either DVD-RAM or EOD is standard, dependent on selected options

[2] 512^2 matrix uncompressed

[3] 512^2 matrix compressed

[4] Based on 300 images per study

DICOM CD Writer

A DICOM CD Writer option stores DICOM images and associated image viewing software on very low cost CD media. Images on these CDs can be viewed and manipulated on PCs meeting the minimum specifications. Ideally suited for individual result storage and referring physician support.

Filming

This function allows the user to set up and store filming parameters. Pre-stored protocols can be set to include auto-filming. The operator can film immediately after each image, at the end of a series, or film after the end of a study and review images before printing. The operator can also automatically film the study at three different windows and incorporate "Combine Images" functionality to manage large datasets. Basic monochrome and color DICOM print capability are supported.

DICOM

Brilliance Workspace supports IHE requirements for DICOM connectivity and can work with DICOM 3.0-compliant PACS, scanners, workstations, and printers. It supports IHE requirements for scheduled workflow and other integration profiles as defined in IHE Statement. Brilliance Workspace includes DICOM service classes to communicate with the following modalities:

- CT
- MR
- Nuclear Medicine including PET/CT
- Computed Radiography
- Radiography & Fluoroscopy (R&F)

Brilliance Workspace includes the following DICOM functionality:

- Service Class User & Provider (CT, MR, NM, Secondary Capture)
- DICOM Print
- DICOM Modality Worklist User
- Query/Retrieve User and Provider
- Modality Performed Procedure Step User
- Storage Commitment User
- Removable Media

Site planning

Contact the Philips Site Planning department for specific requirements pertaining to optional imaging/viewing/power equipment, floor space and electrical, mechanical, structural or environmental specifications.

Power Requirements

- 200/208/240/380/400/415/480/500 VAC
  50/60 Hz 100kVA
- Three-phase distribution source

Console Uninterrupted Power Supply (UPS)*

Provides up to 30 minutes of backup power for host computer, reconstruction, and monitors.

Environmental Requirements

Temperature:

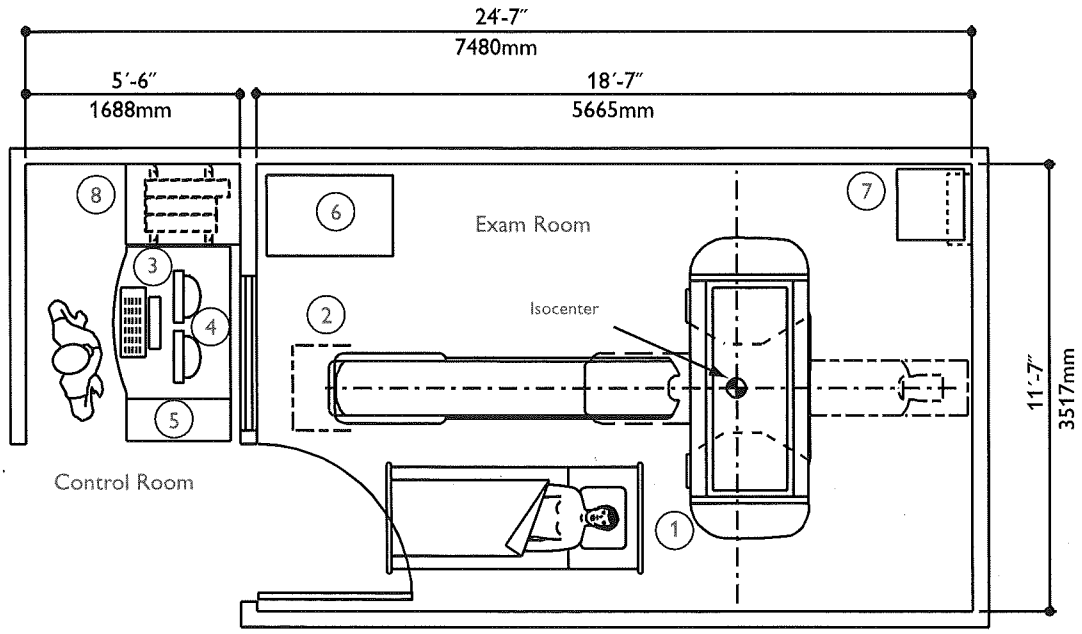
Gantry room:	18° to 24° C (64° to 75° F)
Control room:	15° to 24° C (59° to 75° F)
Storage/Transport:	-5° to +35° C (23 ° F to 95° F)

Humidity:

Gantry/Control:	35% to 70% non-condensing
Storage/Transport:	10% to 90% non-condensing

Heat Dissipation:

Gantry:	18,000 BTU/hr
Computer:	2,559 BTU/hr
Reconstruction:	5,293 BTU/hr



Dimensions and weights

	weight	height	width	depth
① gantry	1941kg (4280lbs.)	203cm (80")	239cm (94")	94cm (37")
② patient table	385kg (850lbs.)	101cm (40")	69cm (27")	249cm (98")
③ console table*	56kg (125lbs.)	76cm (30")	119cm (47")	91cm (36")
④ LCD monitor**	10kg (22lbs.)	49cm (19")	49cm (19")	22cm (9")
⑤ computer cabinet	118kg (260lbs.)	76cm (30")	33cm (13")	90cm (36")
⑥ recon cabinet	151kg (332lbs.)	76cm (30")	64cm (25")	90cm (36")
⑦ transformer (xfmr)	271kg (598lbs)	112cm (44")	56cm (22 ")	53cm (21")
⑧ console UPS*	130kg (286lbs.)	46cm (18")	63cm (25")	66cm (26")

*Optional

**Dimensions and weights for one unit

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Royal Philips Electronics

Interested?

Would you like to know more about our imaginative products? Please do not hesitate to contact us. We would be glad to hear from you.

On the web

www.philips.com/healthcare

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By fax

+31 40 27 64 887

By mail

Philips Healthcare
Global Information Center
P.O. Box 1286
5602 BG Eindhoven
The Netherlands

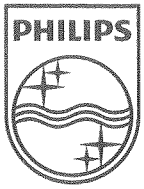
By phone

Asia
Tel: +852 2821 5888

Europe, Middle East, Africa
Tel: +49 7031 463 2254

Latin America
Tel: +55 11 2125 0764

North America
Tel: +1 425 487 7000
800 285 5585 (toll free, US only)



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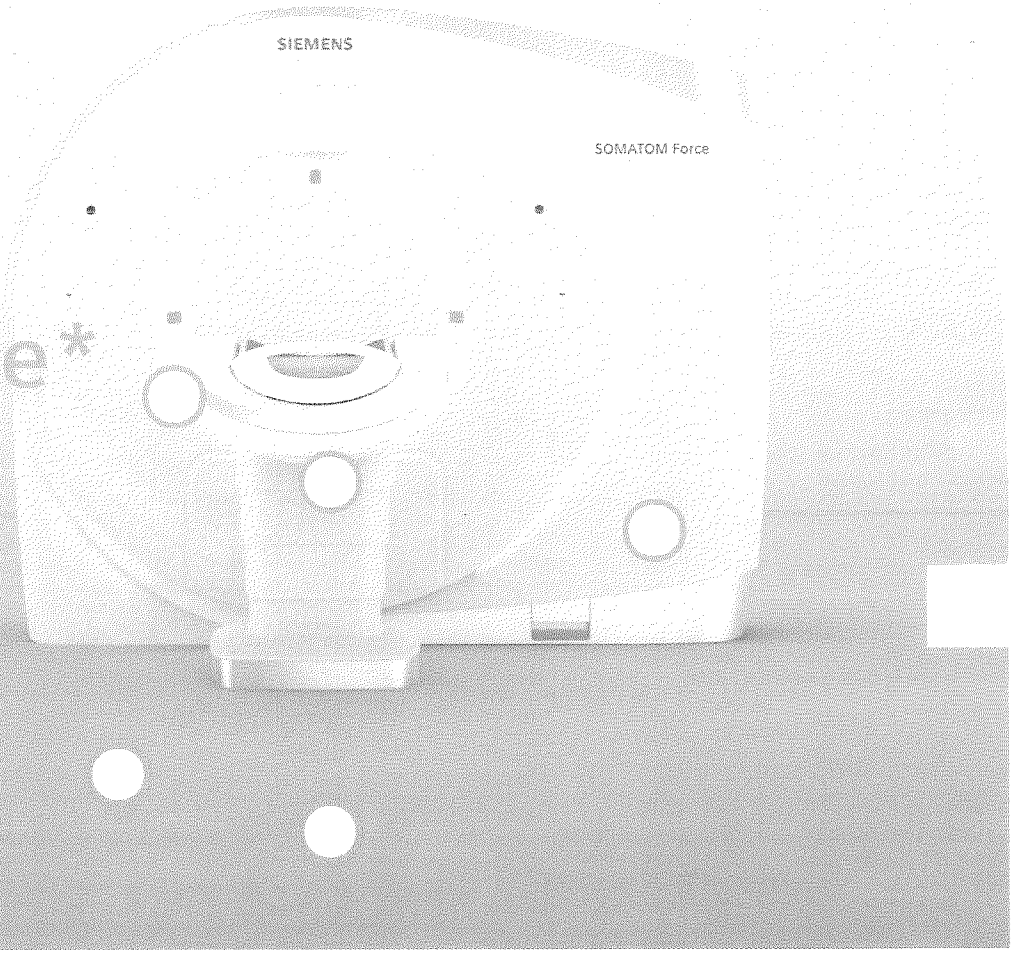


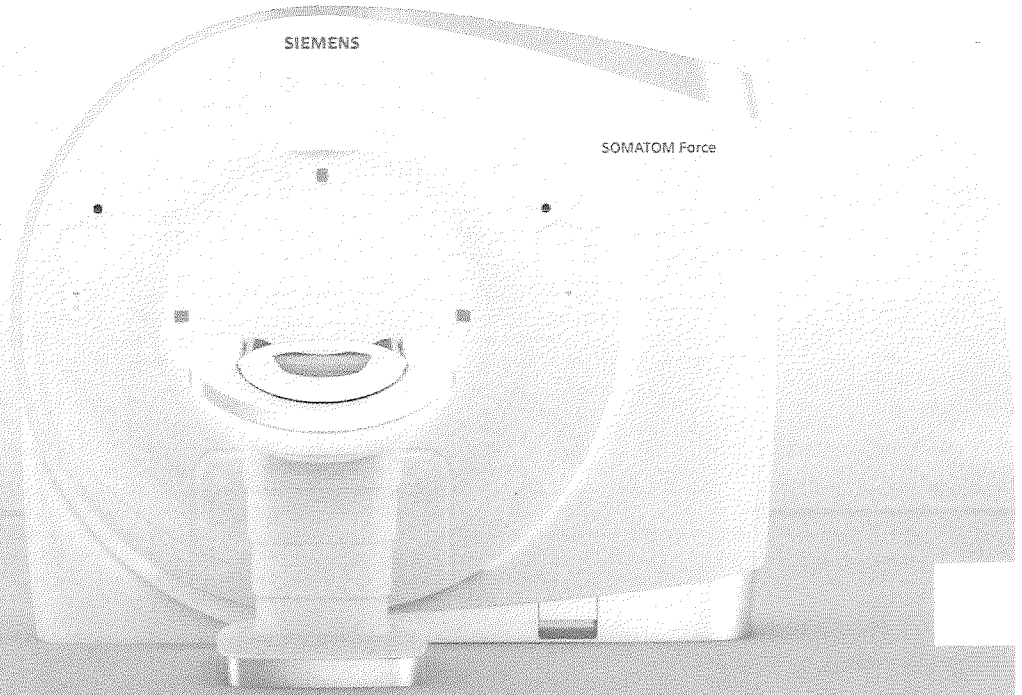
The SOMATOM Force*

As a perfectly balanced combination of the most advanced CT technology, the SOMATOM Force* initiates the next generation in Dual Source Computed Tomography. Incorporating two innovative Vectron tubes and two revolutionary Stellar Infinity detectors, a truly unique Dual Source gantry, and an ultra-high-pitch table, the SOMATOM Force* facilitates CT imaging at unprecedented acquisition speed and temporal resolution. Combining ultra-high pitch scanning and Dual Source technology truly takes CT two steps ahead.

Exhibit 2

*The product features mentioned here are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaran

close



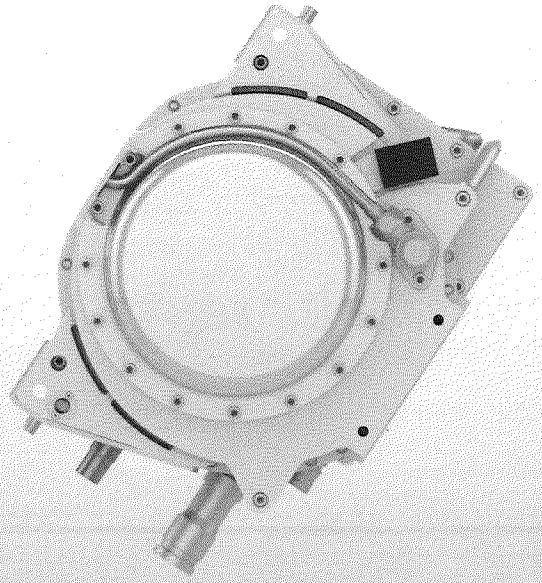
Core technologies

SOMATOM Force* gantry

Next generation Dual Source CT gantry

The unique gantry and high-pitch table, introduce CT imaging at unprecedented acquisition speed of up to 737 mm / s and temporal resolution of 66 ms. Unmatched rotation speed of 0.25 s, a 50% increase in detector coverage, and ultra-high pitch scanning: CT scans can now be performed with a field of view of 50 cm and in patients up to 220 kg weight. This unique Turbo Flash spiral scan mode brings the benefits of Flash scanning to a broader, more challenging, range of patients than ever before.

* The product features mentioned here are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

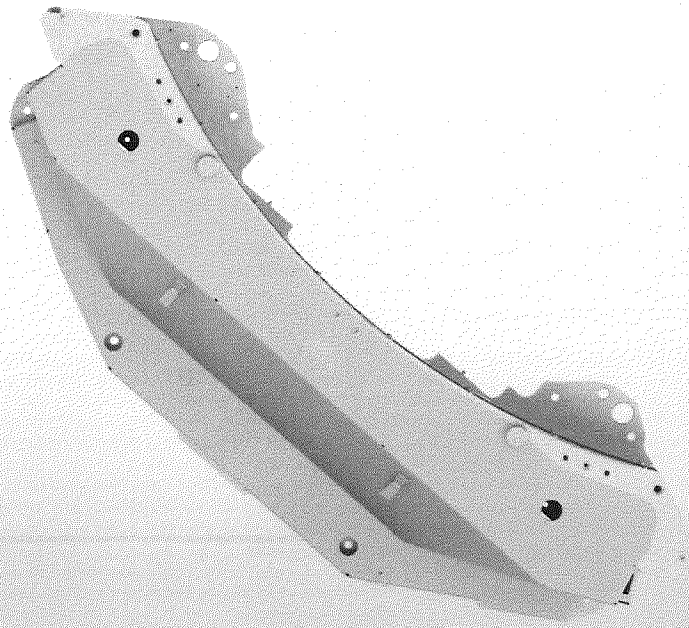


Core technologies

Vectron tube

Powerful new Vectron tube

2 x 1,300 mA, power reserves from two 120 kW generators, direct anode cooling from the Vectron X-ray tube and voltages from 70 - 150 kV: the new Vectron tube is at the heart of a unique combination of high-end technology. The flying focal spot approach of z-Sharp was entirely reworked, significantly increasing in-plane resolution. In combination with a focal point as small as 0.4 x 0.5mm, the Vectron tube delivers outstanding spatial standard resolution of up to 0.22 lp/cm (equivalent to 24 mm) – without increases in dose.



Core technologies

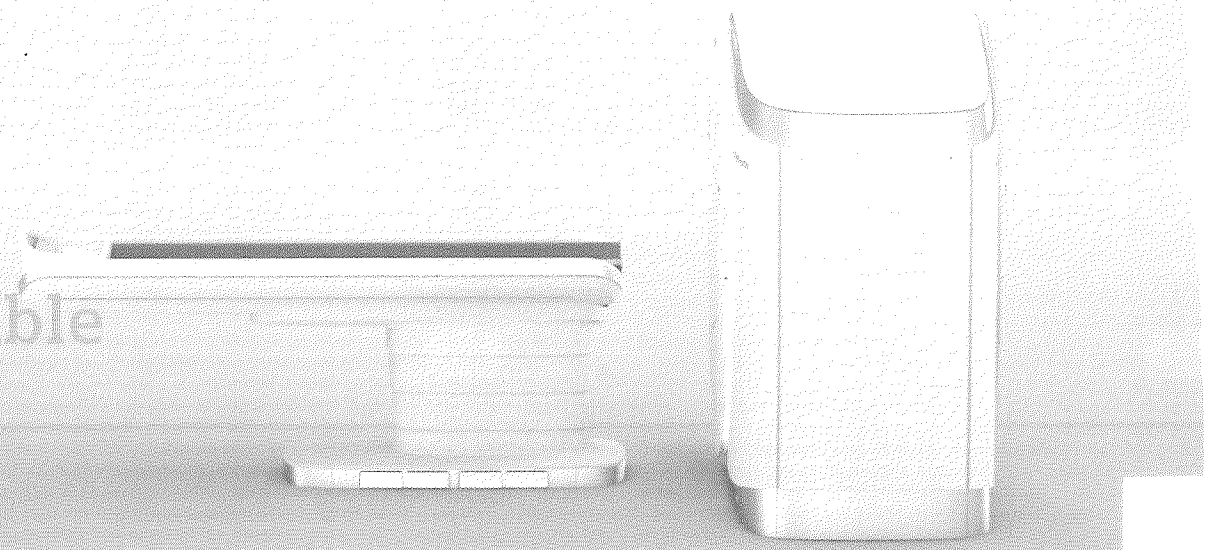
Stellar detector

New Stellar Infinity detector

When it comes to body perfusion, many institutions are still reluctant to apply 4D imaging examinations to clinical routine as it is still considered a high dose examination. The new Stellar Infinity detectors render body perfusion suitable for everyday use. The increased coverage of 2x 96 rows (2x 192 slices) allows for a perfusion range of up to 22 cm. Higher resolution from 25% more detector channels and the new 2D collimator are the key enablers for dose reductions of up to 50% – at outstanding spatial resolution and image quality.

Core technologies

SOMATOM Force* table



High-speed table
The SOMATOM Force* introduces a temporal resolution of 66 ms in cardiac imaging – independent of the heart rate. An entire heart can be covered in approximately 150 ms: faster than a heartbeat. As the data is natively measured, no artificial enhancement is needed. With a volume coverage speed of up to 737 mm/s, a thorax-abdomen scan takes just one second. Combining outstanding gantry and table ultra-high pitch capabilities with 2x 120 kW generator power, the SOMATOM Force* is the ideal scanner for high-speed, large volume coverage.

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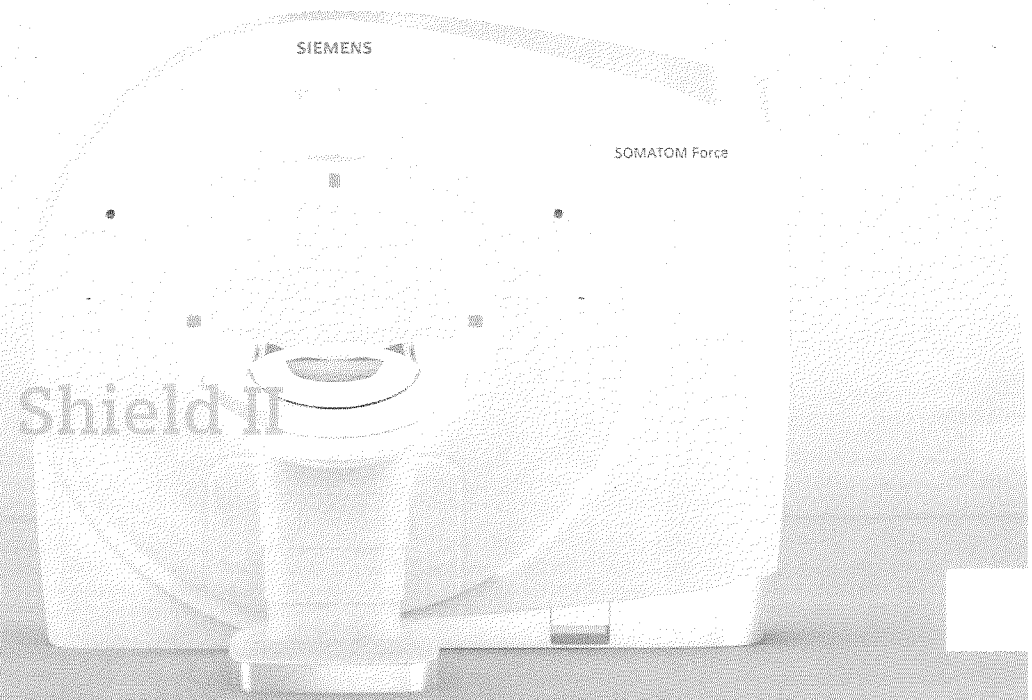
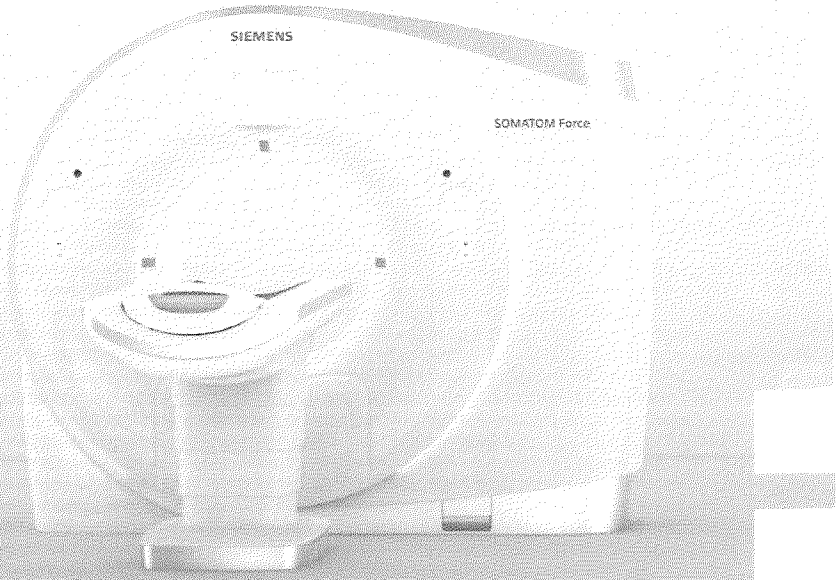


Core technologies

The new Selective Photon Shield II

Improved Selective Photon Shields
Combining low kV capabilities with the higher X-ray filtration of the two new Selective Photon Shields means maintaining contrast concentration while reducing radiation dose – and vice versa. The potential dose reduction of up to 50% in lung and colon exams establishes a new standard in the examination of high-risk, asymptomatic patients. Having pioneered low kV scanning with the introduction of 80 kV and then 70 kV imaging, Siemens now keeps pushing the boundaries of Computed Tomography.

close



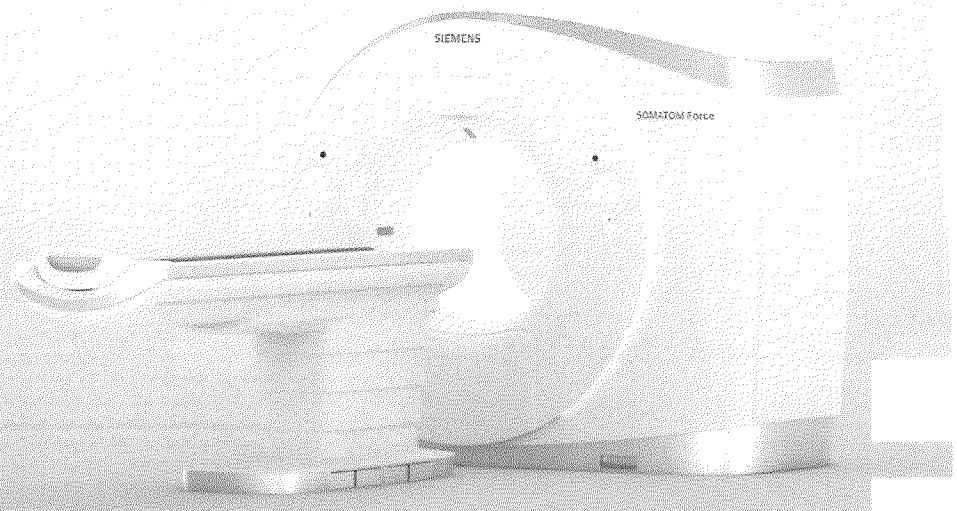
SOMATOM Force

"Two steps ahead" VS. "Trying to keep up" Second best is not an option.

Two steps ahead in **Preventive Care**, allowing a whole new range of patients to benefit. From kidney-friendly scanning to low dose early detection.
Two steps ahead in **Freezing Motion**, helping to avoid preventable re-admissions even in challenging situations. Introducing "free-breathing" CT imaging and the industry's fastest, most versatile scan mode.
Two steps ahead in **Decision Making**, boosting diagnostic confidence with 4D imaging at half the regular dose and precise dual energy quantification.
With the new SOMATOM Force*, you are two steps ahead in all clinical questions. So stop trying to keep up – be two steps ahead with the new SOMATOM Force*.

| Preventive Care | Freezing Motion | Decision Making |

close



Two steps ahead in

Preventive Care

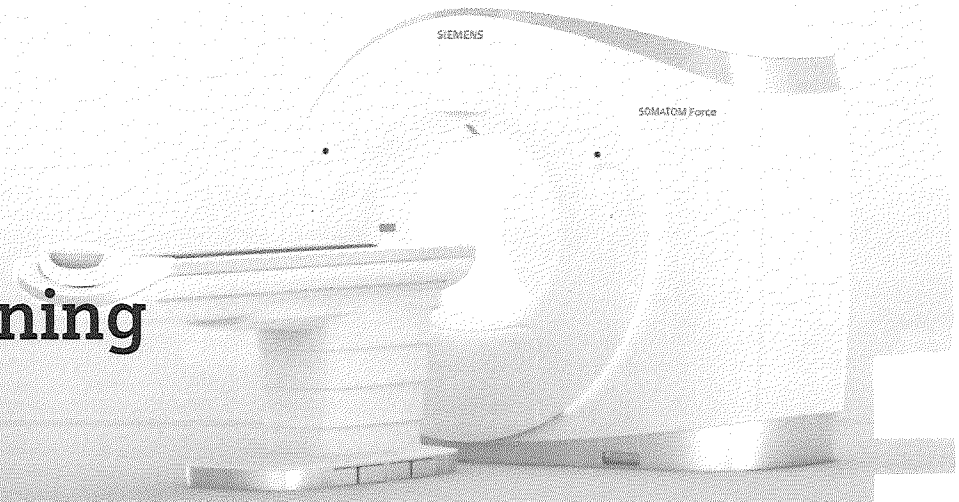
Chronic kidney diseases are on the rise worldwide, creating a need for better care. Contrast media dose reduction means preventing contrast-induced renal toxicity, expensive preparations and after-care. Additionally, with conventional CT, doses can be too high, and results too vague for successful early detection. The SOMATOM Force* provides substantially optimized dose efficiency, resulting in more accurate imaging of a growing number of high risk, asymptomatic individuals.

Step 1: Kidney-friendly scanning

Step 2: Low dose early detection

Preventive Care | Freezing Motion | Decision Making

*The product features mentioned here are not available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.



Preventive Care

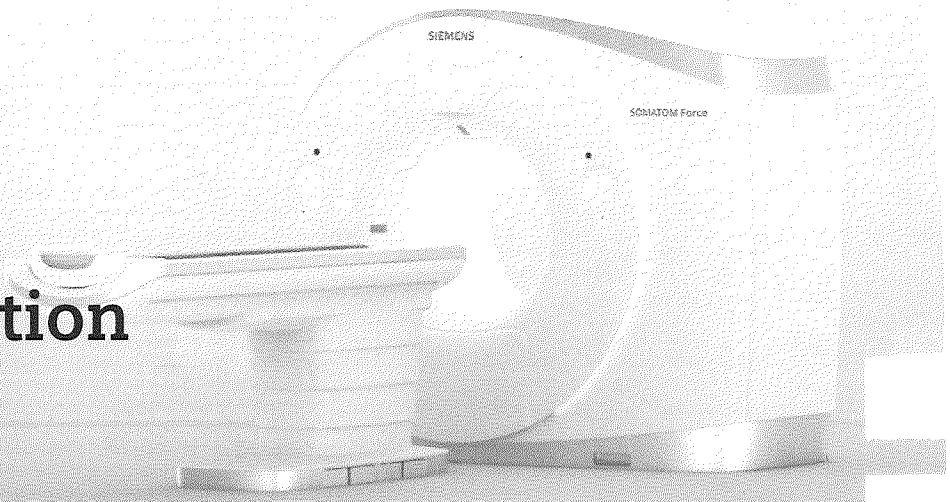
Step 1: Kidney-friendly scanning

Up to 20% of patients presented to the radiology department suffer from renal insufficiency. The SOMATOM Force* enables radiologists to routinely perform exams at 70-90 kV, even in adults, substantially reducing the amount of CM needed and thus optimizing the entire clinical procedure. No preparation or medication prior to CT, no after-care and immediate referral to minimal invasive therapy if needed: significant improvement in the clinical results, as well as considerable savings for hospitals.

Step 2: Low dose early detection

*The product is CE marked. Not all products/features are commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

close



Preventive Care

Step 2: Low dose early detection

The SOMATOM Force* allows for a dose reduction of up to 50% compared to today's leading CT systems. In combination with its outstanding spatial resolution, unprecedented soft-tissue contrast and unmatched speed, this can help improve the early detection of occult lesions, e.g. in the lung or the colon.

Explore more

* The product features mentioned are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

close

Two steps ahead in

Freezing Motion

Motion blur and unwanted artifacts can obscure diagnostic image quality. With the SOMATOM Force*, temporal resolution and thus image quality can be significantly improved helping prevent expensive re-admissions and uncertain diagnosis even in challenging situations. Moreover, with less staff and more complex Computed Tomography challenges, the Turbo Flash Spiral provides a dose-efficient, versatile, high performance standard scan mode delivering higher benefits for more patients and less operational problems.

Step 1: "Free-breathing" CT imaging

Step 2: Fastest, most versatile scanning

*The product is not commercially available in all countries. Due to regulatory reasons its future availability cannot be guaranteed.

Freezing Motion

Step 1: "Free-breathing" CT imaging

Avoiding movement reduces motion artifacts and thus enhances image quality. But a significant number of patients simply cannot hold their breath: obese or elderly patients, unconscious or uncooperative cases, or small children were either excluded completely, had to be sedated, or were scanned with results unusable for diagnosis. Providing the industry's highest native temporal resolution of 66 ms at 0.25 s rotation, the SOMATOM Force* helps to minimize motion artifacts even in these challenging cases.

Step 2: Fastest, most versatile scanning

Freezing Motion

Step 2: Fastest, most versatile scanning

Increasing scan speed to unmatched 737 mm/s, and providing a field of view of up to 50 cm at Flash speed coverage, the Turbo Flash mode expands the Flash Spiral capabilities. Bringing the benefits of Flash to obese and acute care patients, and potentially reducing the number of protocols and associated preparation time, the SOMATOM Force* is the scanner of choice for regular operation, on call, night shift or emergency settings.

Explore more

*The product features mentioned are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

Two steps ahead in

Decision Making

With diagnosis often stuck in a compromise between dose and data, the possibility to deliver high-quality, yet dose-efficient imaging could help in making decisions faster and more sustainable. And as patient-specific therapies grow more complex and expensive, reliable results for early and accurate decisions mean maximizing efficiency in therapy monitoring.

Step 1: 4D imaging at half the dose

Step 2: Precise dual energy quantification

Decision Making

Step 1: 4D imaging at half the dose

Despite the clear benefits of dynamic evaluations, the applied dose has been the crucial threshold to broaden its application, especially to body perfusion. The SOMATOM Force* significantly lowers this hurdle by not only extending the coverage to 22 cm for perfusion (and even 80 cm for CTAs), but particularly by reducing the applied dose by up to 50% compared to today's leading CT systems. Perfusion studies of the liver, for example, now become possible at a dose comparable to conventional multiphase examinations.

Step 2: Precise dual energy quantification

Decision Making

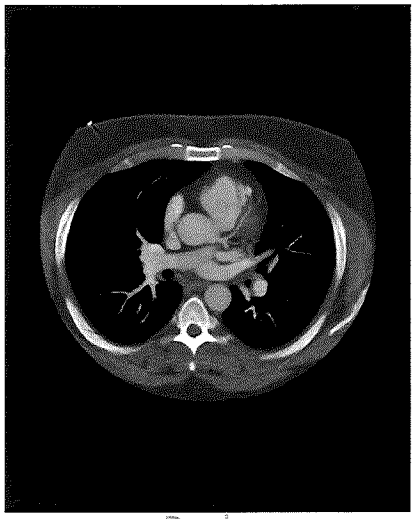
Step 2: Precise dual energy quantification

The SOMATOM Force* drastically increases sensitivity and specificity in Dual Source DE scanning, by allowing an up to 30% higher energy separation. Next to this, the improved DE acquisition speed of up to 258 mm/s, and a much broader range of applications for obese patients allow for a more precise differentiation of tissue types in oncology, cardio-vascular and acute care cases.

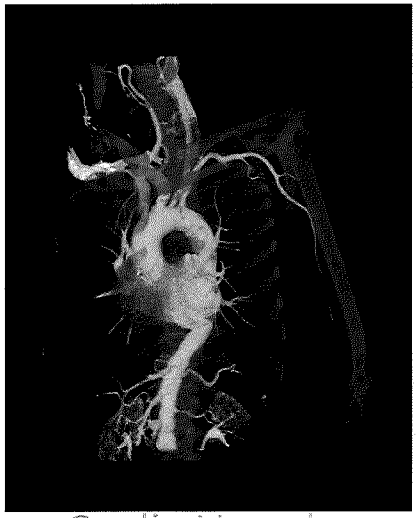
*The products/features are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

close

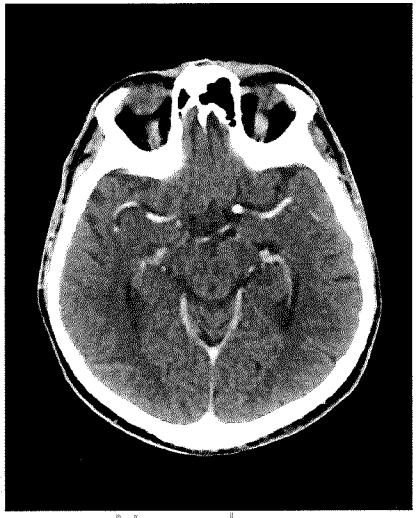
The SOMATOM Force* image gallery



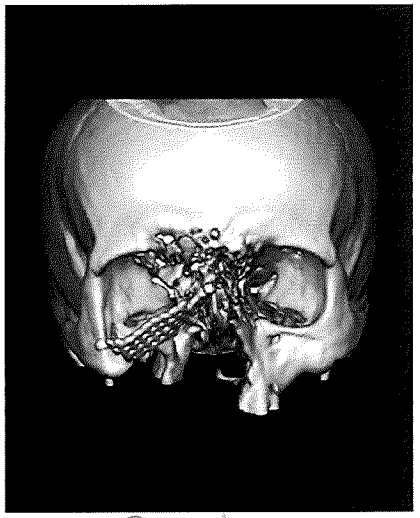
Body



Cardio-Vascular



Neurology



Oncology

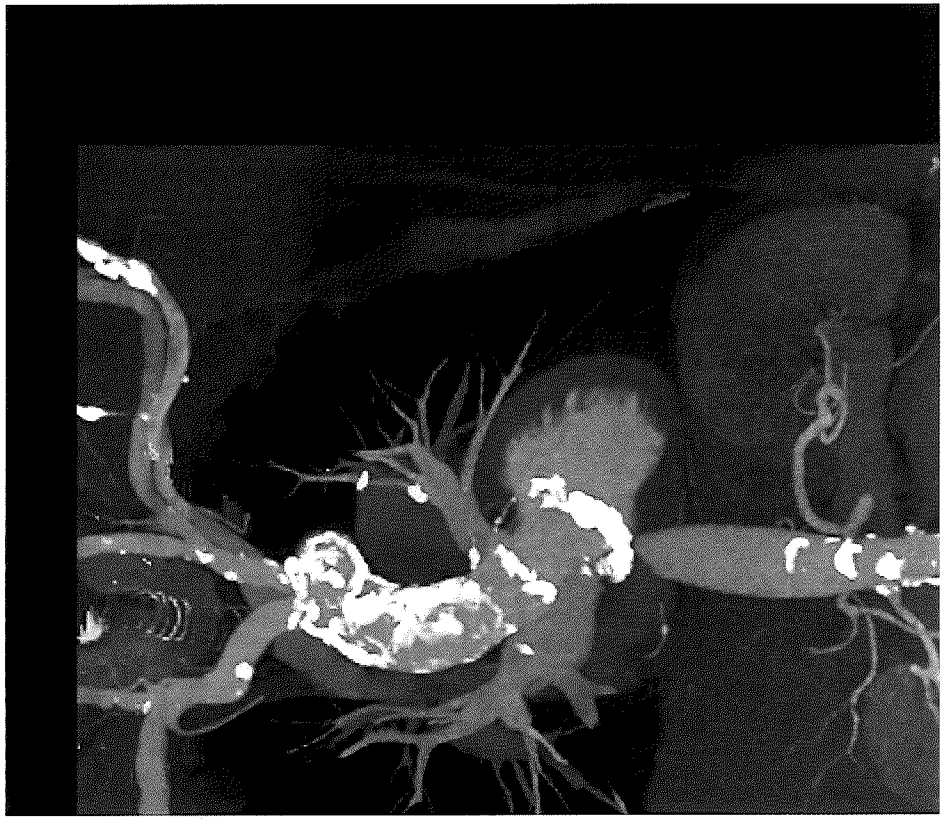
The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

* The product features mentioned are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

Body

Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

With the new Vectron tube, TAVI planning in a heavy patient with chronic kidney disease (shrunken kidney) can be performed at only 90 kV. The increased contrast-to-noise ratio allows the reduction of contrast media down to 40 ml. Due to the minimal renal strain, the patient can soon undergo his subsequent minimal invasive procedure.



Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
1.44 s

Scan length:
727 mm

Rotation time:
0.25 s

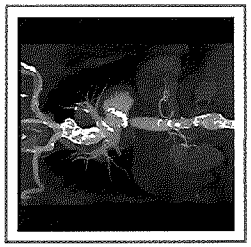
Tube settings:
90 kV, 194 mAs

DLP:
334 mGy cm

CTDIvol:
4.4 mGy

Eff. dose:
5.0 mSv

Contrast media:
40 ml



Body

Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

In this obese patient, suffering from dyspnea (shortness of breath), Turbo Flash scanning allowed to perform the examination without a breathhold command or the patient holding his breath. Maximizing the contrast-to-noise ratio at 70 kV shows great vessel contrast while preserving softtissue contrast – with a contrast media dose of only 30 ml.

Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
0.7 s

Scan length:
294 mm

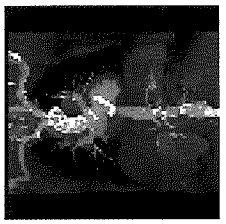
Rotation time:
0.25 s

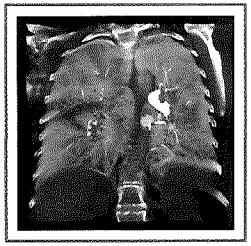
Tube settings:
70 kV, 633 mAs

DLP:
83 mGy cm

CTDIvol:
2.38 mGy

Eff. dose:
1.2 mSv

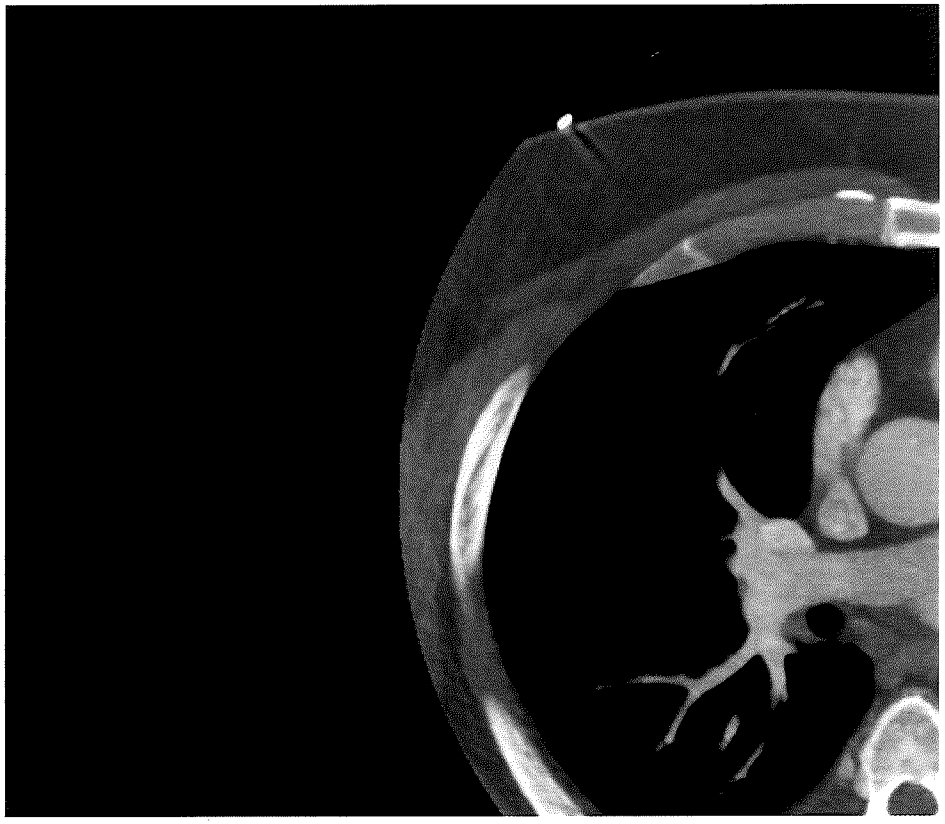




Body

Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

A 140 kg patient was scanned with Cardiac Turbo Flash mode at only 100 kV and 40 ml contrast media. The left main and the left anterior descending artery are shown without artifacts from motion or photon starvation. The new mode allows a pitch dependant field of view, ranging from 35 to 50 cm, and is suitable for patients up to 220 kg.



Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
0.2 s

Scan length:
125 mm

Rotation time:
0.25 s

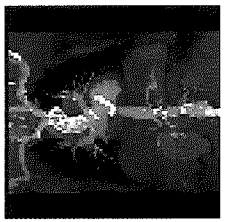
Tube settings:
100 kV, 581 mAs

DLP:
99 mGy cm

CTDIvol:
5.76 mGy

Eff. dose:
1.7 mSv

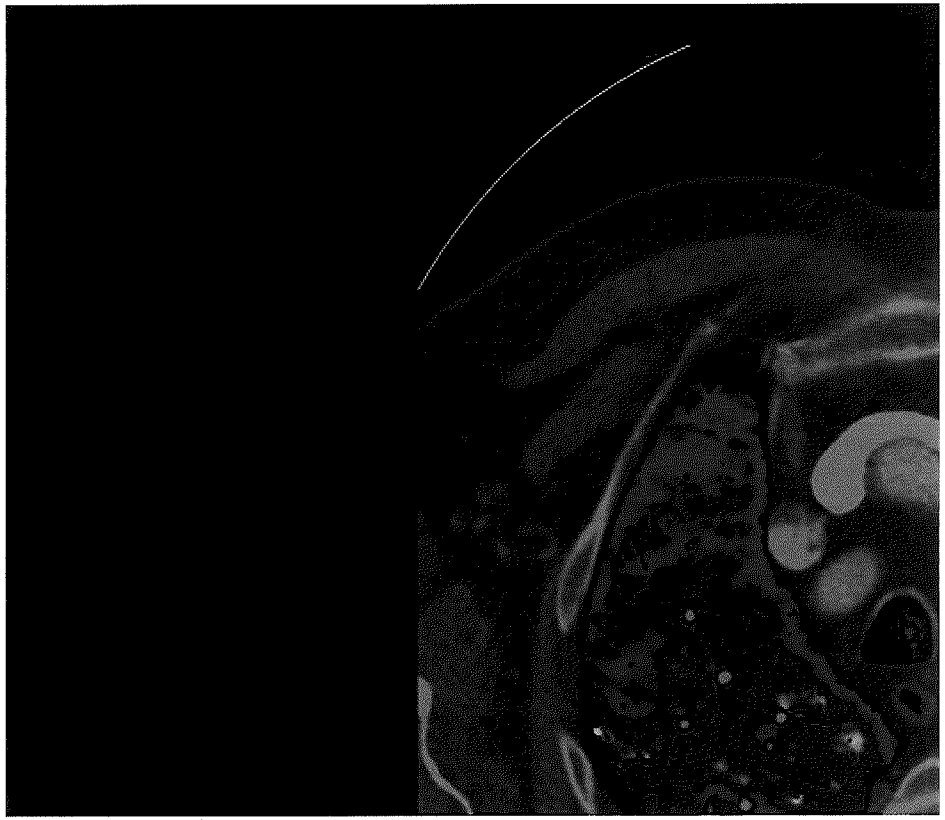
HR independent temp. resolution:
66 ms



Body

Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

The new 90/150 kV Sn mode and a 35 cm field of view allow for obese DE examinations (male, 48 years, 100 kg). The new Selective Photon Shield II increases energy separation by 30%. This combination expands DE information also to challenging patients for more precise tissue and material decomposition.



Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
3.6 s

Scan length:
309 mm

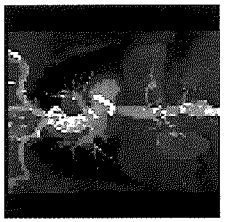
Rotation time:
0.25 s

Tube settings:
90/150 kV Sn, 104/76 mAs

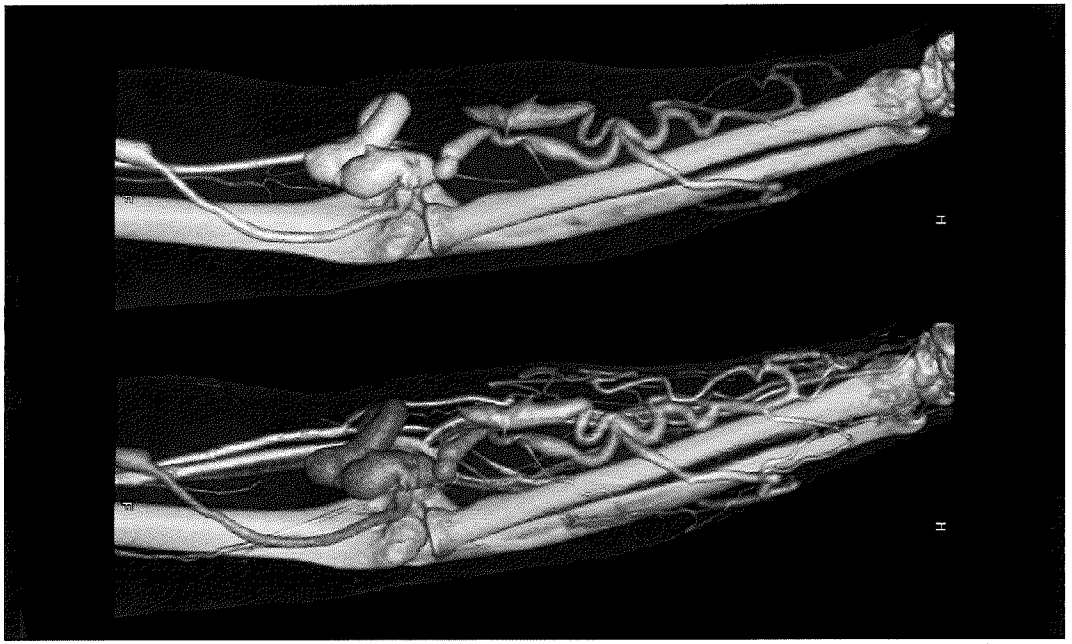
DLP:
187 mGy cm

CTDIvol:
5.54 mGy

Eff. dose:
2.6 mSv



Cardio-Vascular



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

Thanks to the new Vectron tube, 70 kV imaging is also applicable with the Adaptive 4D Spiral Plus. The combination with the Adaptive Dose Shield allows for the coverage of long ranges at very low doses. In this dialysis patient (dialysis shunt), a high-grade stenosis could be safely identified with only 20 ml of contrast media.

Collimation:
192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
4.7 s

Scan length:
433 mm

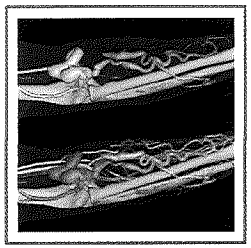
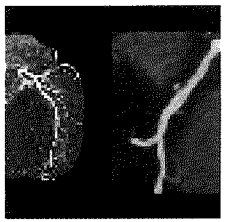
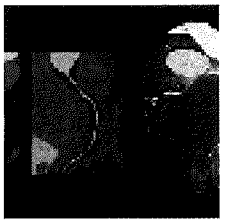
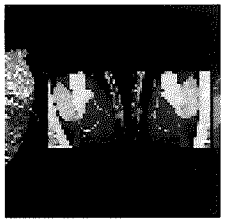
Rotation time:
0.25 s

Tube settings:
70 kV, 80 mAs

DLP:
1404 mGy cm

CTDIvol:
23.57 mGy

Eff. dose:
1.1 mSv

Cardio-Vascular

Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

A SOMATOM Force* coronary CT angiography scan shows the rule-out of coronary artery disease in a high-risk, asymptomatic individual. Cardiac Turbo Flash at 70 kV shows early signs of coronary heart disease reliably and at up to 0.30 mm spatial resolution, at radiation doses far below 1 mSv.

Collimation:
2 × 192 × 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
0.15 s

Scan length:
112 mm

Rotation time:
0.25 s

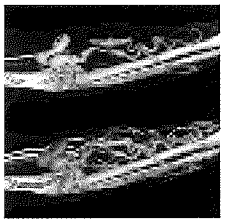
Tube settings:
70 kV, 633 mAs

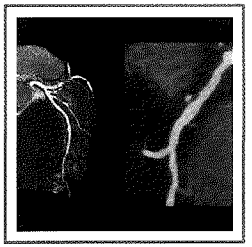
DLP:
30 mGy cm

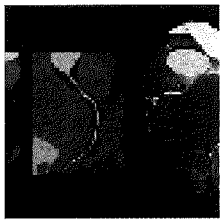
CTDIvol:
1.78 mGy

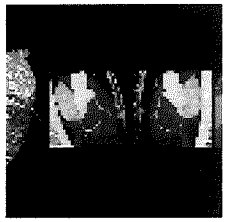
Eff. dose:
0.4 mSv

HR independent temp. resolution:
66 ms

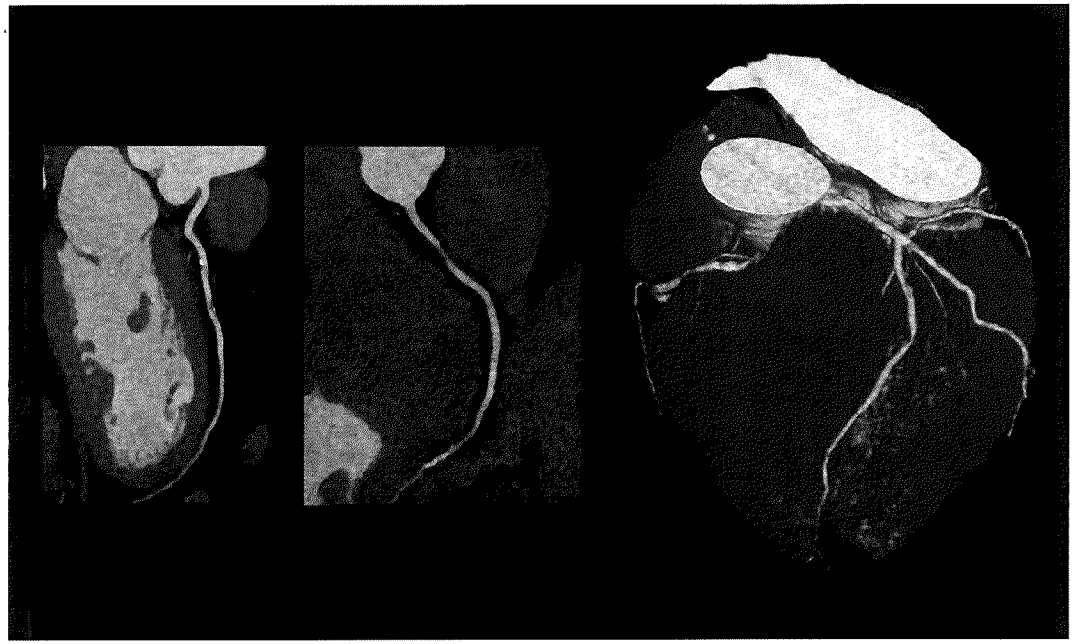








Cardio-Vascular



Courtesy of University Hospital Zurich, Zurich, Switzerland

Turbo Flash coronary CT angiographic imaging at ultra low dose for the evaluation coronary stenosis. One stenosis can be seen in the right coronary artery (RCA) and the other lesions are seen in the left anterior descending artery (LAD). Both at a spatial resolution of up to 22 lp/cm due to the new Vectron tube in combination with Stellar Infinity detector of the SOMATOM Force*.

Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
0.2 s

Scan length:
139 mm

Rotation time:
0.25 s

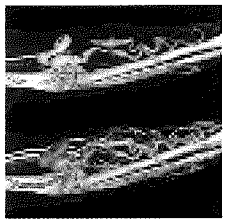
Tube settings:
80 kV, 543 mAs

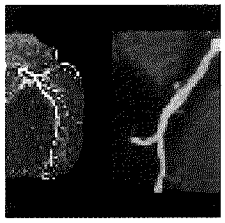
DLP:
45 mGy cm

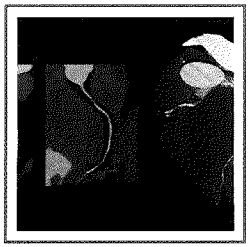
CTDIvol:
2.49 mGy

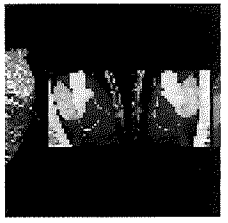
Eff. dose:
0.6 mSv

HR independent temp. resolution:
66 ms

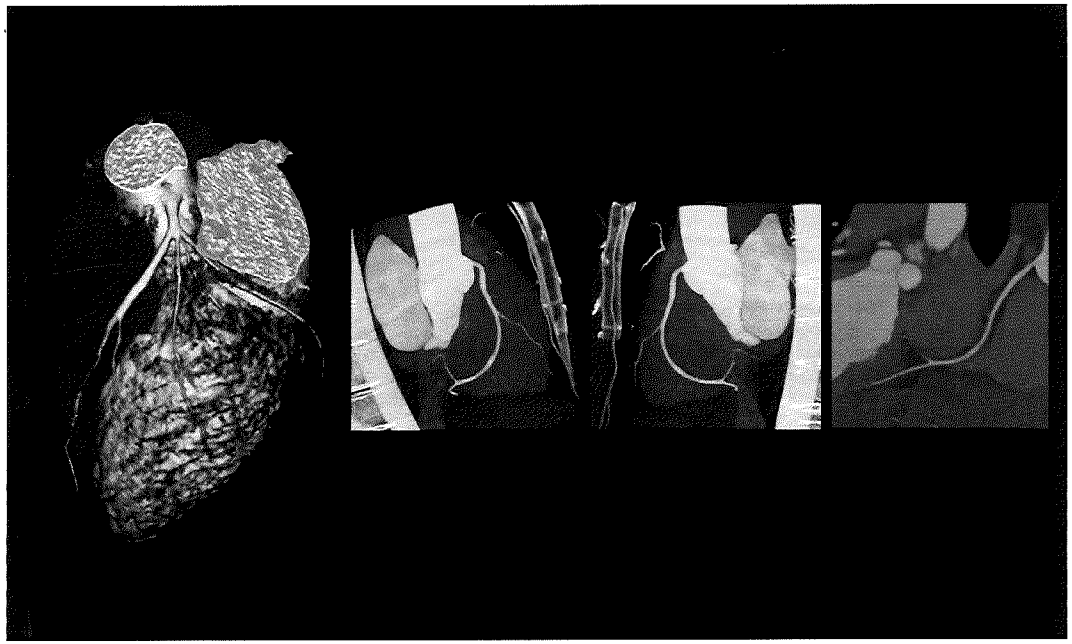








Cardio-Vascular



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

Thanks to Turbo Flash mode, this adult male was scanned at 70 kV without breath-hold. At an ultra-low dose of only 0.3 mSv, this scan was used for ruling out coronary heart disease.

Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Pitch
3.2

Scan time:
0.2 s

Scan length:
139 mm

Rotation time:
0.25 s

Tube settings:
70 kV, 536 mAs

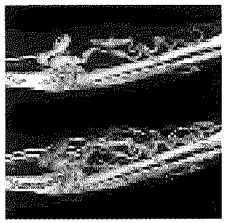
DLP:
26 mGy cm

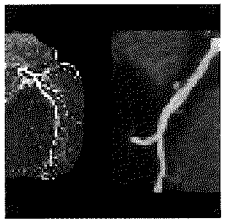
CTDIvol:
1.78 mGy

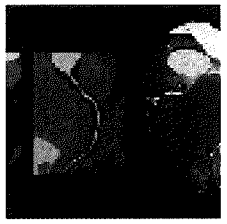
Body weight:
78 kg

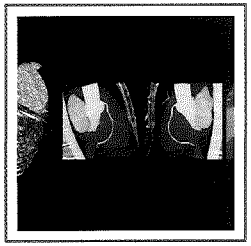
Eff. dose:
0.3 mSv

HR independent temp. resolution:
66 ms

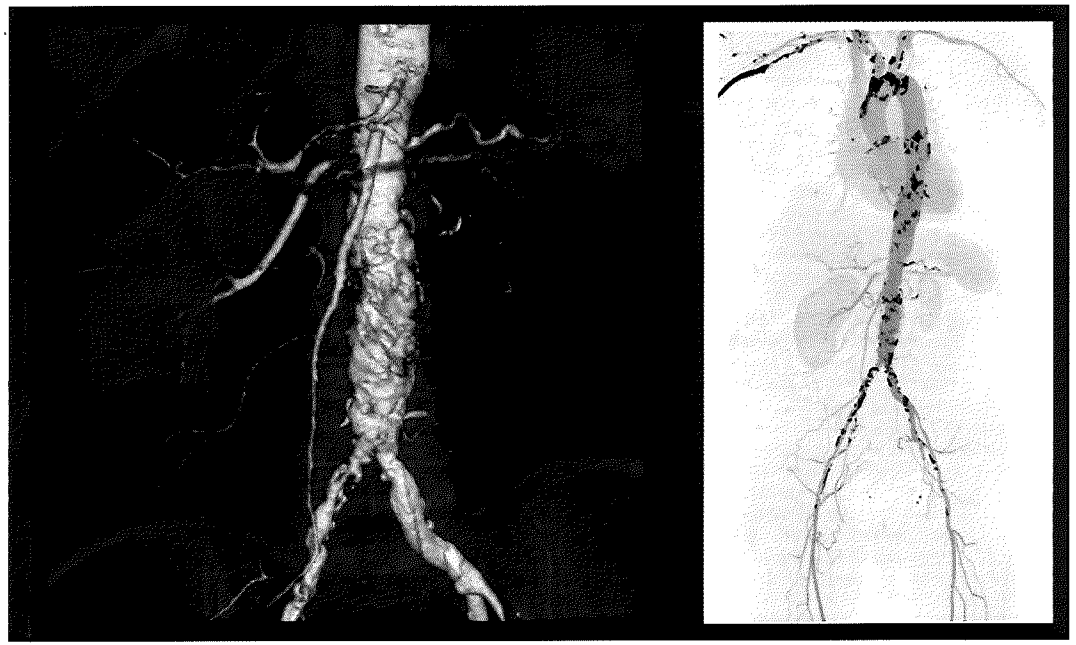








Cardio-Vascular



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

In this patient suffering from renal atrophy, Turbo Flash Spiral for TAVI planning made possible a scan with a contrast media dose of only 40 ml (400 mgI/ml). The image was acquired without breath-hold at an effective dose of 4.67 mSv.

Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Pitch
3.2

Scan time:
0.86 s

Scan length:
636 mm

Rotation time:
0.25 s

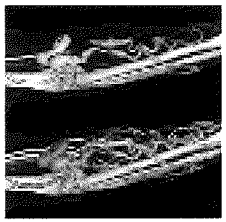
Tube settings:
100 kV, 474 mAs

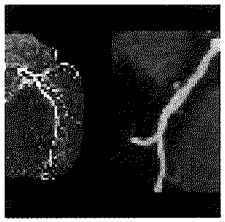
DLP:
26 mGy cm

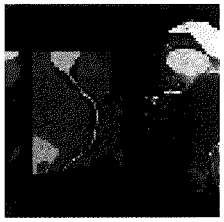
CTDIvol:
4.7 mGy

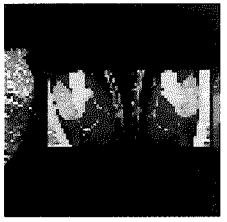
Contrast media:
40 ml

Eff. dose:
4.7 mSv

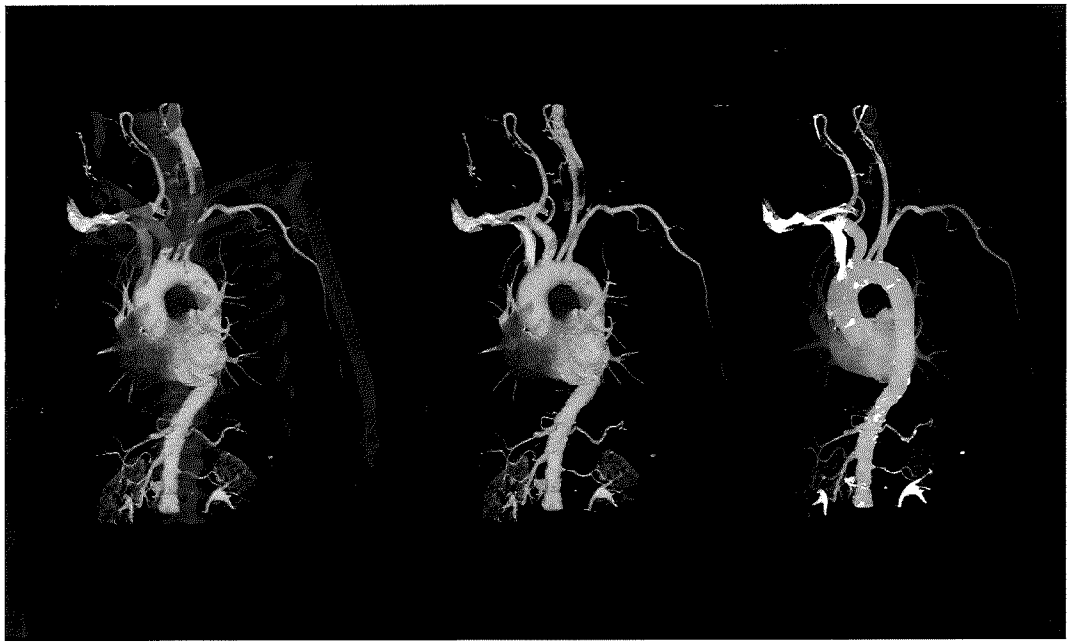








Cardio-Vascular



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

The SOMATOM Force* shows an aortic CTA in an adult patient with renal atrophy. With Turbo Flash Spiral scanning it was possible to use only 40 ml of contrast media (400 mgI/ml).

Collimation:
192 x 0.6 mm

Spatial resolution:
0.30 mm

Pitch
2.4

Scan time:
0.76 s

Scan length:
426 mm

Rotation time:
0.25 s

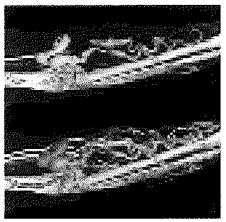
Tube settings:
80 kV, 184 mAs

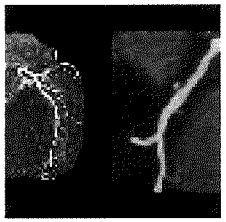
DLP:
132 mGy cm

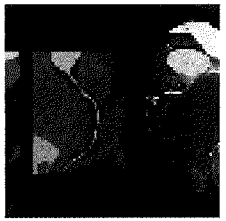
CTDIvol:
4.7 mGy

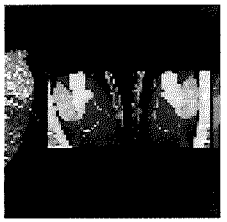
Contrast media:
40 ml

Eff. dose:
1.9 mSv

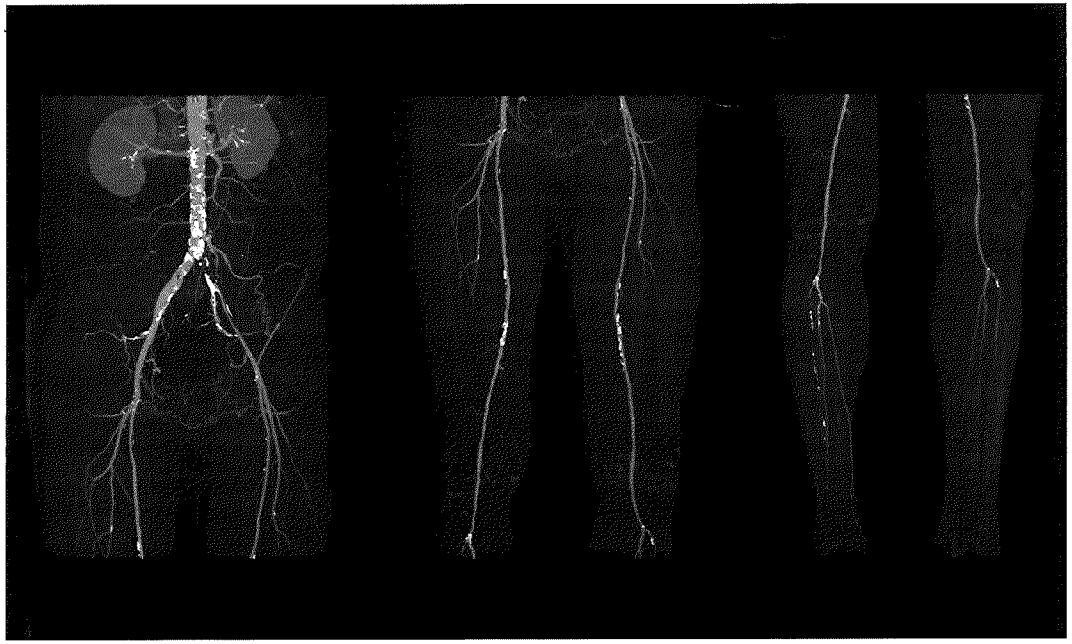








Cardio-Vascular



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

A non-dynamic run-off study of this patient suggests an occlusion of a. tibialis anterior. However, a 70 kV dynamic 4D angiography scan with only 30 ml of contrast media (400mgI/ml) shows the vessel to be patent, thus sparing the patient a complicated bypass procedure.

Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
9 s

Scan length:
1,248.8 mm

Rotation time:
0.5 s

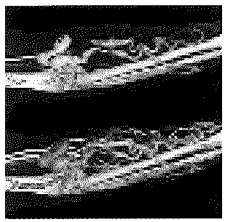
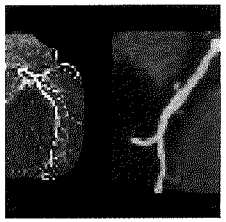
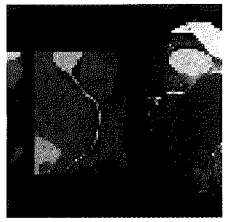
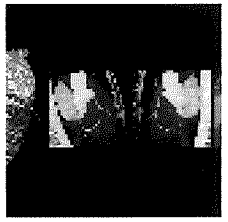
Tube settings:
110 kV, 41 mAs

DLP:
279 mGy cm

CTDIvol:
2.15 mGy

Contrast media:
30 ml @ 5 ml/s

Eff. dose:
1.5 mSv

Cardio-Vascular

Courtesy of University Hospital LMU, Großhadern,Munich, Germany

A young female patient with acute chest pain and suspicious aortic dissection received a quick 0.7 s triple-rule out Turbo Flash CT. It revealed the extension of a very long dissection with the left kidney being supplied from the false lumen. The scan was performed with a dose of 2.7 mSv with a single, low quantity, contrast injection.

Collimation:
2 x 192 x 0.6 mm

Spatial resolution:
0.30 mm

Pitch:
3.2

Scan time:
0.7 s

Scan length:
591 mm

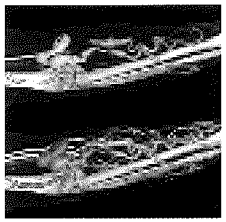
Rotation time:
0.25 s

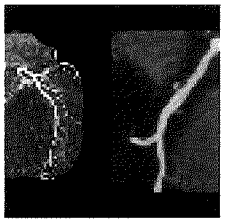
Tube settings:
90 kV, 398 mAs

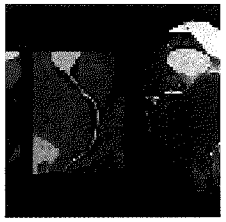
DLP:
177 mGy cm

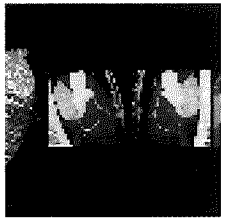
CTDIvol:
281 mGy

Eff. dose:
2.7 mSv

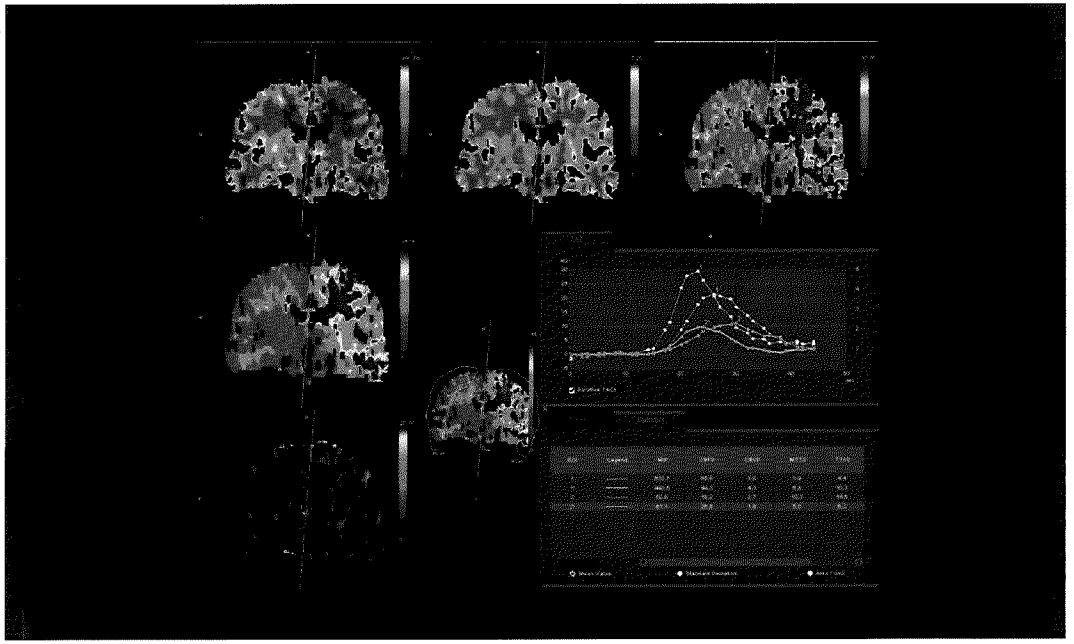








Neurology



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

SOMATOM Force* shows whole brain perfusion in stroke imaging of up to 22 cm, where Volume Perfusion CT reveals left internal carotid artery occlusion.

Collimation:
48 x 1.2 mm

Spatial resolution:
0.30 mm

Scan time:
44 s

Scan length:
220 mm

Rotation time:
0.25 s

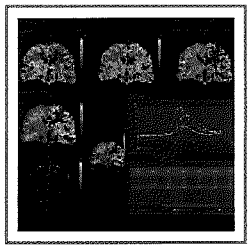
Tube settings:
70 kV, 181 mAs

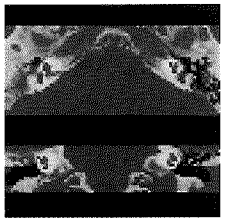
DLP:
1,537 mGy cm

CTDIvol:
74.74 mGy

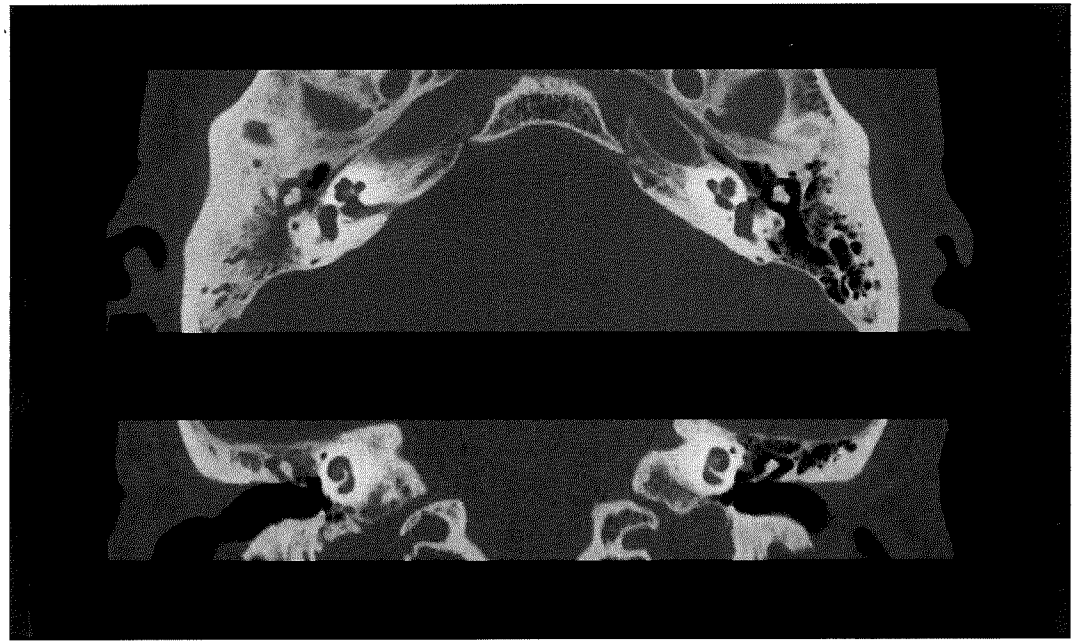
Eff. dose:
4.7 mSv

Contrast media:
40 ml





Neurology



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

At only 0.3 mSv dose and without UHR comb, the ultra-high resolution of the new measuring system visualizes mastoid cochlear and inner ear structures in a very detailed and unseen fashion.

Collimation:
64 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
4.5 s

Scan length:
73 mm

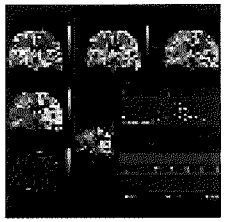
Rotation time:
0.25 s

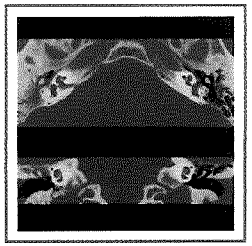
Tube settings:
130 kV, 97 mAs

DLP:
141 mGy cm

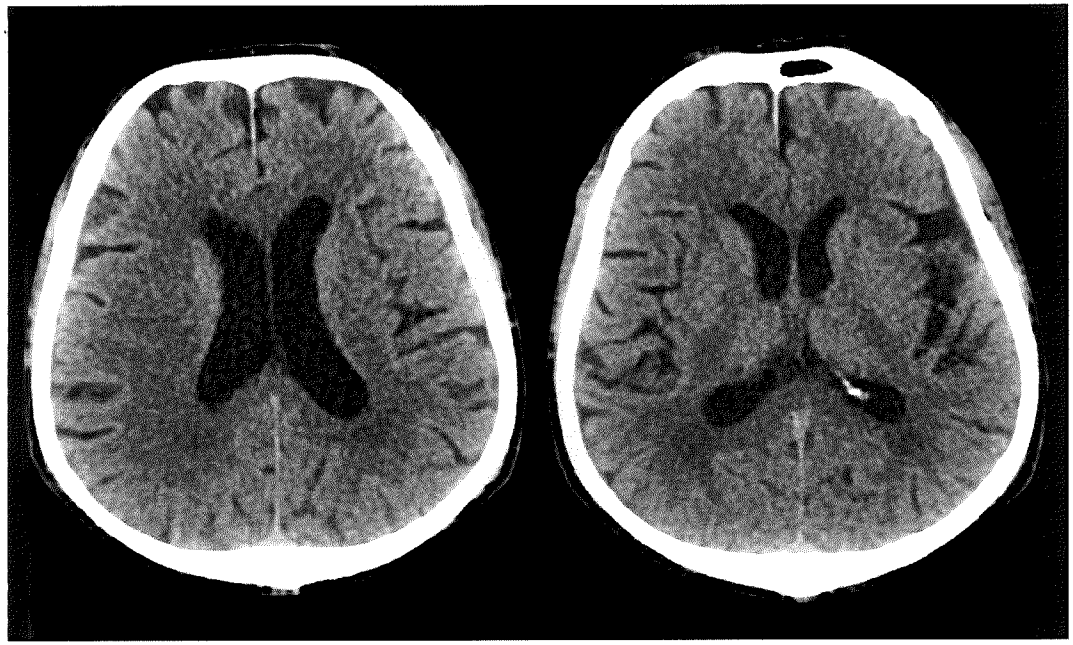
CTDIvol:
16.23 mGy

Eff. dose:
0.3 mSv





Neurology



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

SOMATOM Force* head imaging shows excellent low contrast detectability for enhanced grey-white matter differentiation (head non-contrast media).

Collimation:
64 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
13.5 s

Scan length:
147 mm

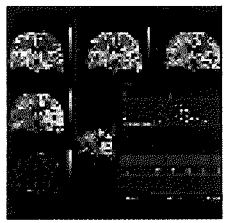
Rotation time:
1.0 s

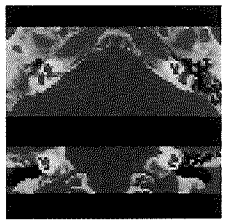
Tube settings:
120 kV, 212 mAs

DLP:
601 mGy cm

CTDIvol:
37.63 mGy

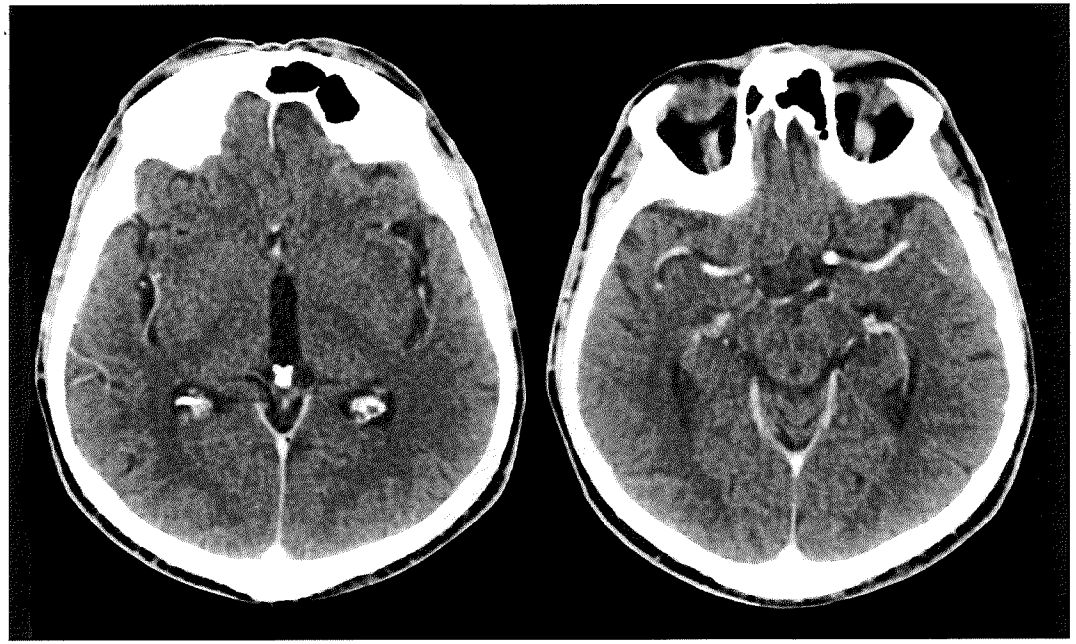
Eff. dose:
1.3 mSv





* The product features described herein may not be commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

Neurology



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

SOMATOM Force* head imaging shows excellent low contrast detectability for enhanced grey-white matter differentiation (head non-contrast media).

Collimation:
64 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
1.5 s

Scan length:
162 mm

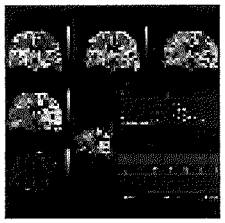
Rotation time:
1.0 s

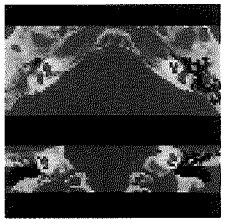
Tube settings:
120 kV, 203 mAs

DLP:
650 mGy cm

CTDIvol:
36.02 mGy

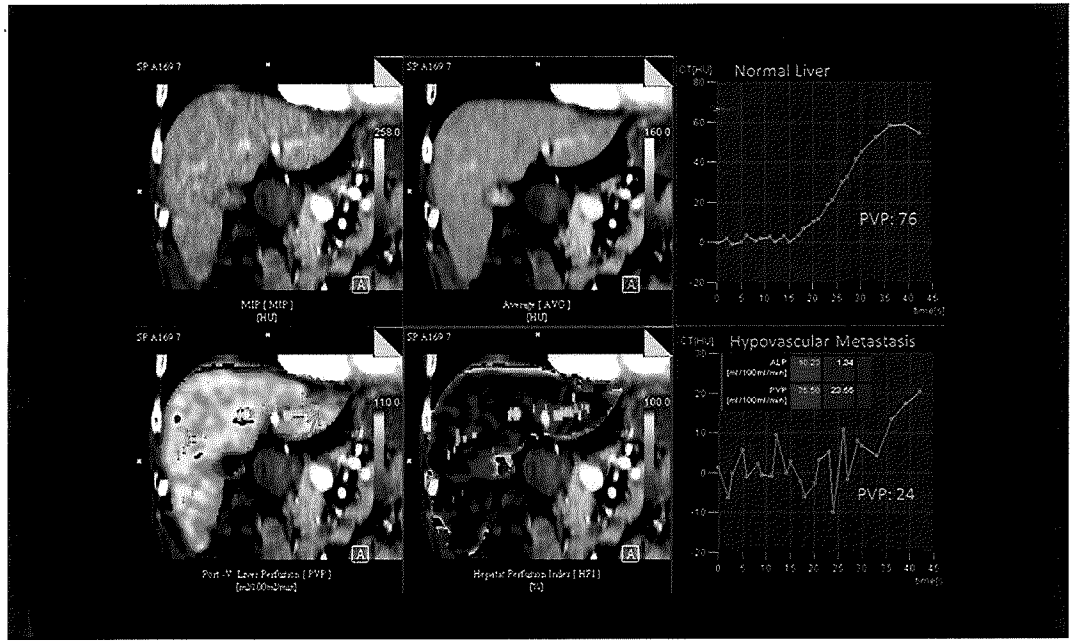
Eff. dose:
1.4 mSv





* The product features mentioned are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

Oncology



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

This liver perfusion study, with a liver metastasis, was acquired with the new Stellar Infinity detector and the Adaptive 4D Spiral Plus, in combination with the Adaptive Dose Shield. Prior to targeted therapy, the baseline blood flow quantification was dynamically acquired over a range of 22 cm at very low perfusion dose.

Collimation:
192 x 0.6 mm

Spatial resolution:
0.30 mm

Scan time:
35 s

Scan length:
176 mm

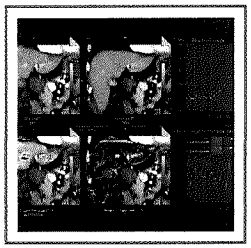
Rotation time:
0.25 s

Tube settings:
80 kV, 100 mAs

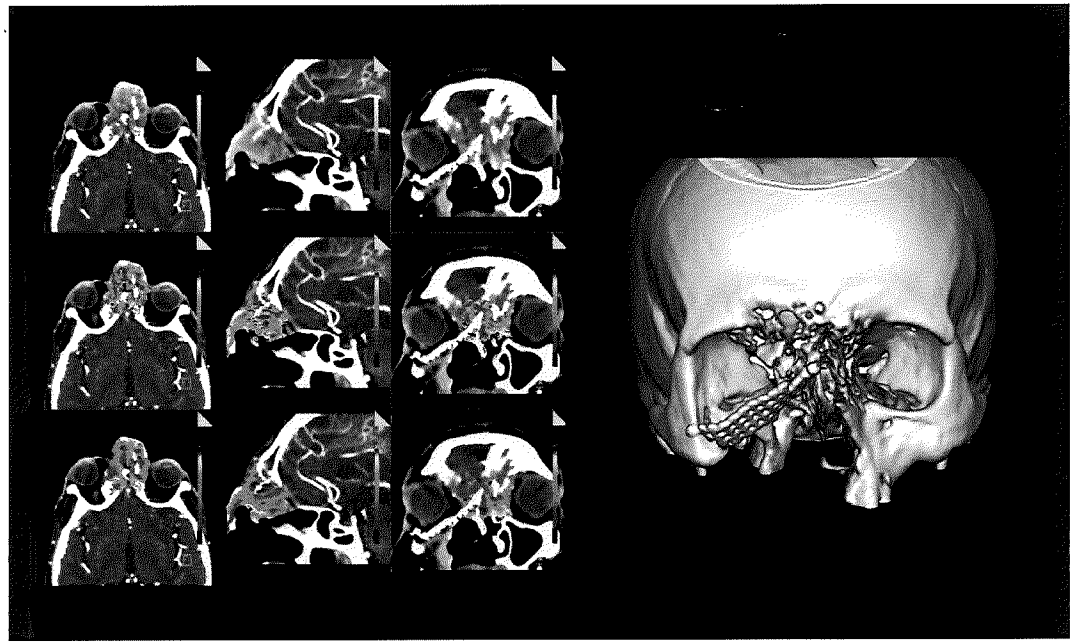
DLP:
948 mGy cm

CTDIvol:
49,4 mGy

Eff. dose:
14 mSv



Oncology



Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

SOMATOM Force* with Volume Perfusion CT measurement was used for a facial tumor baseline staging to novel antiangiogenetic targeted therapy.

Collimation:
48 x 1.2 mm

Spatial resolution:
0.30 mm

Scan time:
58 s

Scan length:
111 mm

Rotation time:
0.5 s

Tube settings:
70 kV, 190 mAs

DLP:
913 mGy cm

CTDIvol:
61.02 mGy

Eff. dose:
1.9 mSv

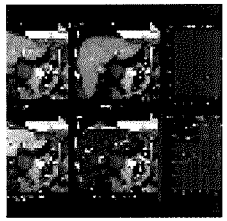


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Exhibit 3

Siemens Medical Solutions USA, Inc.
40 Liberty Boulevard, Malvern, PA 19355
Fax: (336) 856-9995

SIEMENS REPRESENTATIVE
Edwin Winicki - (336) 688-0978

Customer Number: 0000009446

Date: 1/4/2016

REX HOSPITAL
4420 LAKE BOONE TRAIL
RALEIGH, NC 27607

Siemens Medical Solutions, USA, Inc. is pleased to submit the following quotation for the products and services described herein at the stated prices and terms, subject to your acceptance of the terms and conditions on the face and back hereof, and on any attachment hereto.

Quote Nr:	**1-5I0OAF Rev. 0**
Trade:	**Philips Brilliance 64 referenced in Trade Sheet Project # 2015-2997**
Terms of Payment	**00% Down, 80% Delivery, 20% Installation** **Free On Board: Destination**
Purchasing Agreement	**MEDASSETS**
Terms and Conditions	**MEDASSETS terms and conditions apply**
Proposal Valid Until	**9/30/2016**

There is no warranty term despite statements below; this quote reflects pricing adjustment due to removal of warranty. This pricing is conditioned on Customer's purchase of a five (5) year POS Gold Service agreement contemporaneous with the purchase of the items quoted herein. This offer may not be combined with any other special offers.

This Quotation contains information which is confidential and proprietary to Siemens, including but not limited to discounts and pricing. The Customer may not distribute or disclose this quotation or any portion hereof to, or discuss any of the information (including pricing) contained herein with, any other customer or consultant, buying group, or other third party.

Siemens Medical Solutions USA, Inc.		**REX HOSPITAL**	
By (sign):		By (sign):	
Name:	Edwin Winicki	Name:	
Title:	Account Executive	Title:	
Date:		Date:	

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40 Liberty Boulevard, Malvern, PA 19355
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Somatom Definition Force

Qty	Part No.	Item Description
1	14440623	**SOMATOM Force** The all new SOMATOM Force contains two new Vectron X-ray tubes with unprecedented 2 x 1.300 mA tube current at 2 x 120 kW generator power. The new Stellar Infinity detector, including TrueSignal and Edge Technology providing increased in plane resolution (1.840 channels) and ~ 50% increased z-coverage, compared to SOMATOM Definition Flash. SOMATOM Force takes CT imaging where it has never gone before by routinely generating ultra-thin 0.5 mm slices e.g. for most accurate stenosis, plaque and stent analysis and for low-kV imaging without compromises, even in adults or obese patients at scan speeds up to 737 mm/s (opt.). Additionally, the all new measurement system sets the benchmark in low contrast detectability. An object size of 2 mm, at a contrast difference of 3 HU, with a CTDIvol (Ø 32 cm) of only 12.3 mGy (with Phantom CATPHan (20 cm)) can be detected. The all new SOMATOM Force gantry, with its powerful hollow shaft motor achieves maximum rotation speeds of up to 0.25 seconds (optional) resulting in down to 66 ms, heart rate independent temporal resolution to freeze motion. It features the all new Turbo Flash mode, with a dynamic Field of View (FoV) of up to 50 cm, even in ultra-high pitch applications (737 mm/s table speeds, Opt.). Besides, it enables reduction in dose, while it improves overall image quality (both high- and low-contrast resolution) for all scans, resulting, e.g. in dose down to sub-mSv for cardiac imaging and below. In its third generation, Dual Energy with Selective Photon Shield II (~ 30% better energy separation, for more precise Dual Energy quantification), automatically provides a second contrast for the best possible diagnosis without any extra dose at a Dual Energy Field of View (FoV) of up to 35 cm at scan speeds up to 285 mm/s (opt.).
1	14440674	**CT Replacement SOMATOM Force** SOMATOM Force base configuration.
1	14440672	**ADMIRE** ADMIRE (Advanced Modeled Iterative REconstruction) is the next generation of Iterative Reconstruction. ADMIRE offers on the fly powerful dose reduction, excellent image quality and everyday suitability. Other unique qualities of ADMIRE are: Superb details, Positive impact on the reconstructed image quality in comparison to SAFIRE, Reader-ready reconstructions deliver the desired image impression on the fly. Due to the computer power of the new Image Reconstruction System (IRS), ADMIRE has a potential to lower radiation, and to offer a routine-ready performance.
1	14420827	**FAST CARE Platform** Siemens' unique FAST CARE platform is set to raise the standard of patient-centric productivity. Utilizing FAST - Fully Assisting Scanner Technologies - typically time-consuming and complex procedures during the scan process are extremely simplified and automated, not only improving workflow efficiency, but optimizing the clinical outcome by creating reproducible results, making diagnosis more reliable and reducing patient burden through streamlined examinations. Siemens' desire for as little radiation exposure as possible lies at the heart of the CARE - Combined Applications to Reduce Exposure - research and development philosophy offering a unique portfolio of dose saving features, many of them being introduced as industry's first.
1	14433987	**FAST Planning #AWP** Direct, organ-based setting of scan and recon ranges for a faster and more standardized workflow
1	14440678	**FAST 3D Align** FAST 3D Align enables automated alignment of FOV, adjustments and reconstructions of standard views.
1	14433988	**FAST Spine #AWP** Accurate and anatomically aligned preparation of spine recons with just a single click.
1	14441180	**CARE Child** Dedicated pediatric CT imaging, including 70 kV scan modes and specific CARE Dose4D curves and protocols
1	14410507	**X-CARE** Partial scanning to reduce direct X-ray exposure for the most dose-sensitive body regions, e.g. the breasts, thyroid gland or eye lens

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Edwin Winicki - (336) 688-0978

Qty	Part No.	Item Description
1	14402943	**Extended Field of View** Software program with special reconstruction algorithms that allow for visualization of objects using a FoV up to 78 cm (non-diagnostic image quality). License to use software on a single unit.
1	14440629	**Edge Technology #AWP** The new fully-integrated Stellar Infinity detector combined with EdgeTechnology allows for high resolution scanning in daily clinical practice.
1	14440630	**UHR with extra wide comb** The new UHR mode, with the wide large UHR-Comb, delivers Ultra High resolution in plane of up to32lp/cm (0.16 mm) for high defined imaging of small structures such as inner ear or even the lung, joints or fractures of the bone. The UHR Collimation could be increased to 32 x 0.6 mm collimation.
1	14440657	**HeartView 0.25 s rotation** Scanning technique and program for ECG controlled data acquisition and image reconstruction with lowest possible dose. Dual Source acquisition mode with single segment reconstruction enables heart-rate independent temporal resolution of 66 ms (factor 2 higher than single source acquisition with same parameter) that allows to reliably scan high heart rates, e.g. in acute chest pain evaluation, in coronary visualization, and in functional analysis of the heart.
1	14440682	**Cardio BestPhase Plus #AWP** Cardio BestPhase, a software dedicated to automatically detect the optimal phase for motion-less coronary visualization. The phase is defined in either end-systole, end-diastole or both timepoints and automatically reconstructed. Includes DirectViewingTM, a tool for real time navigation through full volumes of up to 24 heart phases by using an integrated fast 3D volume viewer, available both on the Examination and Recon subtask card. Furthermore it provides easy VRT visualization of the coronaries with removal of all parts of the chest in up to 20 phases within 15 seconds. DirectViewingTM completes the workflow of Cardio BestPhaseTM by giving you the flexibility to individually visualize phases for all coronary arteries.
1	14440654	**Physiological Monitoring Module** The Physiological Monitoring Module allows to connect a 3 Channel ECG cable for ECG controlled cardiac acquisition.
1	14403008	**ECG Cable IEC2 #D** ECG cable, IEC2 (AHA/US color coding).
1	14441045	**Rear cover incl. gantry panels** Standard CT gantry back cover, including two gantry panel control units.
1	14406485	**Keyboard English** Keyboard in the above-mentioned language.
1	14403163	**Hose pipe 30 m insulated** Hose pipes to connect the "Cooling System" with the gantry.
1	14440677	**Cable loom 25 m** Cable loom used to connect the power distribution system (PDS) with the gantry.
1	14440671	**Earthquake kit prepared** The SOMATOM CT Scanner earthquake kit is already built in. It consists of a special floor mounting which is necessary in earthquake-prone countries or areas.
1	14440651	**Tunnel Light** SOMATOM Force offers a funnel mood light (LED) in different, preset, adjustable colors that are synchronized with the gantry ring light. It makes the gantry bore appearing wider thus making it easier for patients with claustrophobia to undergo their examination.
1	14440652	**Ring Light** SOMATOM Force offers a gantry ring mood light (LED) in different, preset, adjustable colors that are synchronized with the gantry funnel light. They help creating a relaxing atmosphere for your patients, making a SOMATOM Force examination even more exciting and memorable.
1	14440653	**Patient Table** Patient table to support ultra-fast spiral scanning and up to 200cm scan range. Motor-driven table height adjustment

Qty	Part No.	Item Description
		from min. 49 cm to max. 92 cm, longitudinal movement of the tabletop 200 cm in increments of 0.5 mm, positioning accuracy +/- 0.25 mm from any direction. Horizontal scan range 200 cm. Table height can be controlled alternatively by means of foot switch (2 each on both sides of the patient table). In the case of emergency stop or power failure, the tabletop can also be moved manually in horizontal direction. Max. table load: 227 kg/500 lbs, Table feed speed: 2-737 mm/s. Positioning aids: Positioning mattress, mattress protector, head-arm support (inclusive cushion), non-tiltable and tiltable head holders with positioning cushion set, patient restraining system for head fixation, restraining-strap set with body fixation strap that can be directly connected to the patient table top, headrest, table extension with positioning mattress, knee-leg support.
1	14402979	**Mat for Patient Table** For the comfortable positioning of the patient on the CT table.
1	14406461	**syngo Expert-I #AWP** Expert-i enables the physician to interact with the syngo CT Workplace from virtually anywhere in your hospital.
1	14440680	**syngo Dual Energy Scan with SPS II** The syngo Dual Energy Scan with SPS II (Selective Photon Shield II) option allows the use of both SOMATOM Force X-ray sources simultaneously at different energies, while the Selective Photon Shield II reduces dose and at the same time increases energy separation by blocking unnecessary parts of the energy spectrum. syngo Dual Energy offers the possibility to acquire two spiral data sets simultaneously from a single scan running the tubes at 80/140 kV, 100/140 kV and newly with 80/150 kV (for obese Dual Energy imaging). The results are two data sets with diverse information.
1	14428553	**FAST DE (DE WorkStream 4D)** FAST Dual Energy (DE) is a 4D workflow for the Dual Energy data with direct generation of axial, sagittal, coronal, or double-oblique images from standard Dual Energy scanning protocols. The Advantage: the elimination of time consuming, error prone, manual reconstruction steps and a reduction of data volume up to a factor of 10, since virtually all diagnostic information is captured in 3D slices.
1	14440627	**A4D Spiral w/ Adaptive Dose Shield** The unique Adaptive 4D Spiral, in combination with the new Adaptive Dose Shield, moves beyond fixed detector limitations to provide full coverage of any organ in 4D, while it block unnecessary radiation during the examination. It introduces up to 80 cm range for dynamic CTA imaging and 4D Noise Reduction to significantly improve image quality with no increase in dose or, alternately, reduce dose up to 50 % without compromising image quality (4D Noise Reduction requires Volume Perfusion CT Neuro or Body).
1	14428036	**CARE Contrast III** Integrated solution for a simplified bolus injector coupling. It synchronizes scan and contrast injection and transfers the injector protocol data in the patient protocol, in the e-logbook and to MPPS (if configured).
1	M2SCT222LDF	**Stellant Dual Flow CT Inj.(Ceiling-long)**
1	M2ISI900SI	**Medrad ISI900 interface,w/install**
1	ADAPT_DOSE_SHIELD	**Adaptive Dose Shield** Adaptive Dose Shield for spiral acquisition to eliminate pre- and post-spiral over-radiation.
1	FAST_ADJUST	**FAST Adjust** FAST Adjust: assists the user to handle system settings in a fast and easy way by automatically solving of conflicts within user defined limits by one single click on the FAST Adjust button. The limits for scan time and tube current per scan are defined via the Scan Protocol Assistant. FAST Adjust offers an undo functionality to return to previously set values.
1	FAST_SCAN_ASSIST	**FAST Scan Assistant** FAST Scan Assistant: An intuitive user interface for solving conflicts by changing the scan time, resp. the pitch and/or the maximum tube current manually.
1	CARE_DOSE4D	**CARE Dose4D** CARE Dose4D delivers the highest possible image quality at the lowest possible dose for patients - maximum detail, minimum dose. Adaptive dose modulation for up to 60% dose reduction
1	CARE_KV	**CARE kV** CARE kV: First automated, organ-sensitive voltage setting to improve image quality and contrast-to-noise-ratio while optimizing dose and potentially reducing it by up to 60%.

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Siemens Medical Solutions USA, Inc.
40 Liberty Boulevard, Malvern, PA 19355
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SIEMENS REPRESENTATIVE
Edwin Winicki - (336) 688-0978

Qty	Part No.	Item Description
1	CARE_PROFILE	**CARE Profile** CARE Profile: Visualization of the dose distribution along the topogram prior to the scan
1	CARE_DASHBOARD	**CARE Dashboard** Visualization of activated dose reduction features and technologies for each scan range of an examination to analyze and manage the dose to be applied in the scan
1	DOSE_ALERT	**Dose Alert** Dose Alert: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition automatically adds up CTDIvol and DLP depending on z-position (scan axis). The Dose Alert window appears, if either of these cumulative values exceeds a user-defined threshold.
1	DOSE_NOTIFICATION	**Dose Notification** Dose Notification: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition AS provides the ability to set dose reference values (CTDIvol, DLP) for each scan range. If these reference values are exceeded the Dose Notification window informs the user.
1	ACCESS_PROTECT	**Access Protection** Scan Protocols are password protected allowing only authorized staff members to access and permanently change protocols
1	NEMA_XR-29	**NEMA_XR-29 Standard** This system is in compliance with NEMA XR-29 Standard Attributes on CT Equipment Related to Dose Optimization and Management, also known as Smart Dose.
1	CT_UPS_FORCE	**Standard UPS for Force** The standard partial system uninterruptible power system (UPS) is built directly into the power distribution cabinet (PDC) and supports the critical circuits for table and gantry electronics, console computer, image reconstruction system, and the internal Ethernet switch (to ensure connectivity). This enables safe removal of patient if outage occurs during scanning. The UPS allows for a safe shutdown of the CT scanner in the event of power interruption. The UPS provides 5-7 minutes of power, during which the user is prompted and guided through the process to perform a safe shutdown of the system. This safe shutdown ensures that no data is lost.
1	CT_PM	**CT Project Management** A Siemens Project Manager (PM) will be the single point of contact for the implementation of your Siemen's equipment. The assigned PM will work with the customer's facilities management, architect or building contractor to assist you in ensuring that your site is ready for installation. Your PM will provide initial and final drawings and will coordinate the scheduling of the equipment, installation, and rigging, as well as the initiation of on-site clinical education.
1	CT_BUDG_ADDL_RIG	**Budgetary Add'l/Out of Scope Rigging @ $7,320**
1	CT_STD_RIG_INST	**CT Standard Rigging and Installation** This quotation includes standard rigging and installation of your CT new system. Standard rigging into a room with reasonable access, as determined by Siemens Project Management, during standard working hours (Mon. - Fri./ 8 a.m. to 5 p.m.) It remains the responsibility of the Customer to prepare the room in accordance with the SIEMENS planning documents. Any special rigging requirements (Crane, stairs, etc.) and/or special site requirements (e.g. removal of existing systems, etc.) is an incremental cost and the responsibility of the Customer. All other "out of scope" charges (not covered by the standard rigging and installation) will be identified during the site assessment and remain the responsibility of the Customer.
1	4SPAS014	**Low Contrast CT Phantom & Holder**
1	PSPD250480Y3K	**Surge Protective Device (SPD)**

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Qty	Part No.	Item Description
1	CTSDEF01	**CT Slicker** Thermoseal seams and flaps deflect fluids, reducing contaminant penetration into the cushion and table. Contaminants are retained on the tabletop or shunted to the floor. Cleanup is faster, more thorough, and contaminant build-up is reduced. Built using heavy, clear, micro matte vinyl, and top grade hook and loop fastening strips (Velcro) to better fit the specified table. Custom vinyl resists tears and minimizes radiologic interference. Latex free. Set includes CT Skirts. Shipped with main cover, a catheter bag holder, and 3 restraining belts unless otherwise noted. Includes warranty from RADSCAN Medical.
1	CT_PR_FORC_CC_BON	**Force Comp Conversion Bonus**
1	CT_RELOCATION_SVC	**CT Eqp Relocation service transfer**
1	CT_ONSITE_WSP	**CT Hands-On Wrkshp at Customer Facility** This (4) hour customized workshop will take place onsite at the customer's facility and will be facilitated by Siemens Clinical Education Specialists. Through the use of didactic and/or hands-on training attendees will be able to increase their knowledge and skills to help improve their clinical practice. Workshop must be scheduled consecutively (Monday - Friday) during standard business hours. This educational offering must be completed (12) months from date of purchase order. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	CT_INITIAL_32	**Initial onsite training 32 hrs** Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	CT_FOLLOWUP_32	**Follow-up training 32 hrs** Up to (32) hours of follow-up on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	CT_ADD_32	**Additional onsite training 32 hours** Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist if applicable. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	14443870	**syngo.CT DE Advanced Package @via#1** The syngo.CT Dual Energy Advanced Package includes all Dual Energy applications that are available for syngo.via.
1	14444341	**CT with syngo.via (identifier)** CT with syngo.via (identifier)
1	14444626	**s.via CT bundle A (Identfier)** CT system bundled with syngo.via
1	14444644	**syngo.via Workstation** One User License of the syngo.via client server solution for multi-modality image reading. It provides 2D, 3D, 4D image reading capabilities at almost every workplace for various modalities (e.g. CT, MR, PET/CT, CR, XA image types). The syngo.via client runs on standard Windows computers in the network and integrates into radiologist's reading workplace (RIS; PACS) for efficient image reading based on a wide range of clinical applications) for different clinical cases. Those applications are available as additional options for syngo.via and follow the flexible concurrent user model (users working at the same time). The service support for syngo.via requires the provision of an administrator with dedicated tasks and a minimum broadband Internet connection bandwidth.

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Qty	Part No.	Item Description
1	14442263	**WebViewer User #1 Integrated Server** syngo.via WebViewer is a web-based client server add-on to syngo.via. It provides high-speed 2D and 3D image data review and basic manipulation functionality within the healthcare institution's network and through secure VPN connection both over LAN and wireless connections. The integrated server can be used for internal image distribution only (internet access only by VPN infrastructure). The syngo.via WebViewer runs on PC, Mac and laptops equipped with appropriate browsers, as well as on Apple iPad.
1	14445150	**syngo.via General Engine WS** The syngo.via General Engine provides functionalities for highly efficient reading and reporting of routine to advanced cases. The syngo.via General Engine comprises the following software modules: ALPHA technology speeds up the workflow by automating and standardizing reconstructions and improves consistency in image presentation. syngo.via Advanced Reporting enables efficient and structured management and communication of syngo.via results plus easy creation and administration of report templates.
1	14443980	**syngo.CT Neuro Perfusion #1** syngo.CT Neuro Perfusion visualizes blood perfusion in the brain. This can help in acute ischemic stroke to estimate the extent of tissue at risk to infarct (penumbra) that is potentially salvageable with further therapy. In brain tumors, blood brain barrier disturbances can be visualized which may improve differential diagnosis and could be helpful in therapy monitoring. User License: 1
1	14443984	**syngo.CT Dynamic Angio #1** syngo.CT Dynamic Angio visualizes blood flow dynamically. Movies and images are created to visualize blood flowing from the arterial to the venous phases. This may support the inspection of diseases which affect the vessel system. In ischemic stroke, visualization of delayed collaterals with tMIP images may help clinicians to select patients more likely to benefit from further treatment. User Lisence: 1
1	04456682	**License Transfer** License transfer from one system to another system.
1	14429311	**PACS-Driven Implementation Pkg.** This PACS-Driven Implementation Package includes installation and integration services for syngo.via in a radiologic workflow mainly supported by the PACS functionality. This package includes professional services, such as: - Installation of the syngo.via server software on the server hardware - Installation of the syngo.via client software on one clinical workplace for one user - Connection to up to 5 DICOM nodes - Image call-up of syngo.via from the PACS' user interface - Assistance in setting up image call-up of syngo.via from the PACS' user interface. This may require the purchase of software and services from the PACS vendor. - Configuration of basic syngo.via workflows and rules - Integration of one syngo.via client workplace with one syngo MultiModality Workplace. - Basic installation service for the syngo.via at the customer's site. - Integration into the Local Area Network of the customer and to Siemens Remote Service over internet connection. - Installation of WebViewer integrated license (syngo.via SW version VA30 or higher, country restrictions might apply).
1	14444968	**syngo.via local Impl.(Identifier)** Identifier for professional services completely provided by locally organized resources.

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Qty	Part No.	Item Description
1	14444622	**Server-based Workstation** syngo.via server tower floorstand configuration.
1	14432643	**HP Care Pack. 5y WS HW Support** Extended Prime HW Support for 5 years
1	14413099	**EIZO MX241W Display** The EIZO MX 242W is a color widescreen LCD monitor for diagnostic use and clinical review with a resolution of 1920 x 1200 pixels.
1	14429312L	**Via Workstation Server HW Installation** Basic installation of the syngo.via Workstation hardware with the operating system at the customer's site by the hardware supplier. Integration into the Local Area Network of the customer and to Siemens Remote Service over internet connection. Please check that the following information is included in the customer quote: correct and complete delivery location, customer's contact person for implementation planning. See also the questions in the Sales Checklist, which supports you in evaluation of the customer's requirements.
1	SY_VIRINTL_4	**Virtual Initial Consultation, syngo.via** This virtual initial consultation session, up to 4 hrs in duration, is designed to define the clinical customization of syngo.via specific to radiology workflow. Through direct communication with a clinical education specialist, this session will identify and configure site-specific workflow and imaging storage and retrieval parameters. This educational offering must be conducted no more than 4 weeks before the scheduled system turnover event. This consultation session will be scheduled during standard business hours, Monday through Friday. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	SY_INITIAL_16	**Initial onsite training 16 hrs syngo.via** Up to (16) hours of on-site clinical applications training on syngo.via basic navigation and modality specific clinical workflows, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4)users. Training will focus on the use of syngo.via in clinical routine and customization of systems based on workflow needs. This educational offering must be completed (12) months from turnover date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	SY_ADDTL_16	**Addt'l training 16hrs, syngo.via** Up to (16) hours of on-site clinical applications training on syngo.via navigation and modality specific clinical workflows, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4)users. The training offering must be completed (12) months from the later of turnover date or offering purchase date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	SY_PR_VIA_GEN_ENG	**Syngo.via Promo SY Gen Eng (FMV-$20,000)** This promotion enables customers with purchase of syngo.via Server or Syngo Via Workstation solution, a reduction in the price of Syngo General Engine by the amount of $20,000. To qualify, Customer's binding purchase order must be received by Siemens on or before September 30, 2015 and syngo.via system delivery if not purchased with a Siemens scanner, must occur no later than December 31, 2015.

System Total: $1,735,000

Exhibit 4

SIEMENS

March 18, 2016

Rex Hospital
Attn: Steve Finch
Director of Diagnostics Services
Rex Hospital
Raleigh, NC 27607

Dear Steve Finch,

The purpose of this letter is to confirm that Siemens Medical Solutions USA, Inc.(Siemens) will be responsible for removing your Philips Brilliance 64 CT scanner Model Number 455012009231("existing equipment") installed at Rex Hospital in Raleigh, NC as part of your purchase of a Siemens Force Dual Source CT system. The cost for the deinstallation and removal is included in the price quotation for the replacement equipment, which totals $1,735,000. There are no additional costs for deinstallation and removal.

We will work closely with you to ensure proper timing of the deinstallation. It is understood that Siemens will take possession of the existing equipment and will permanently remove it from the State of North Carolina. Siemens will not sell the existing equipment to any North Carolina facility unless the facility has the appropriate Certificate of Need approval as required by the State of North Carolina.

Sincerely,

Edwin Winicki
Key Account Executive
Siemens Healthcare, USA

Siemens Healthcare, USA
51 Valley Stream Parkway
Malvern, PA 19351

www.SiemensMedical.com

Name of Mobile Provider: Rex Healthcare

10e. Other MRI

Patients served on units listed in the next table should not be included in the MRI Patient Origin Table on page 34 of this application. For hospitals that operate medical equipment at multiple sites/campuses, please copy the MRI pages and provide separate data for each site/campus. Campus – *if multiple sites:* Combined

Other Scanners	Units	Inpatient Procedures*			Outpatient Procedures*			TOTAL Procedures
		With Contrast or Sedation	Without Contrast or Sedation	TOTAL Inpatient	With Contrast or Sedation	Without Contrast or Sedation	TOTAL Outpatient	
Other Human Research MRI scanners								
Intraoperative MRI (iMRI)								

* An **MRI procedure** is defined as a single discrete MRI study of one patient (single CPT coded procedure). An MRI study means one or more scans relative to a single diagnosis or symptom.

10f. Computed Tomography (CT)

How many fixed CT scanners does the hospital have? 5
Does the hospital contract for mobile CT scanner services? ____ Yes ✓ No
If yes, identify the mobile CT vendor ____

Complete the following tables (one for fixed CT scanners; one for mobile CT scanners).

Scans Performed on Fixed CT Scanners *(Multiply # scans by Conversion Factor to get HECT Units)*

	Type of CT Scan	# of Scans		Conversion Factor		HECT Units
1	Head without contrast	9688	X	1.00	=	9688
2	Head with contrast	632	X	1.25	=	790
3	Head without and with contrast	109	X	1.75	=	190.75
4	Body without contrast	8133	X	1.50	=	12,199.50
5	Body with contrast	11,712	X	1.75	=	20,496
6	Body without contrast and with contrast	752	X	2.75	=	2068
7	Biopsy in addition to body scan with or without contrast	485	X	2.75	=	1333.75
8	Abscess drainage in addition to body scan with or without contrast		X	4.00	=	