



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

Pat McCrory  
Governor

Aldona Z. Wos, M.D.  
Ambassador (Ret.)  
Secretary DHHS

Drexdal Pratt  
Division Director

April 16, 2015

Elizabeth V. Kirkman  
Assistant Vice President  
CHS Management Company  
2709 Water Ridge Parkway, Suite 200  
Charlotte, North Carolina 28217

**Exempt from Review - Replacement Equipment**

Facility: Carolinas Medical Center-NorthEast  
Project Description: Replace General Electric VCT 64 Slice Light Speed CT scanner  
County: Cabarrus  
FID #: 943049

Dear Ms. Kirkman:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of March 25, 2015, the above referenced proposal is exempt from certificate of need review in accordance with G.S 131E-184(f). Therefore, you may proceed to replace the existing GE VCT 64 Slice Light Speed CT scanner located in room 13224 on Level 1 of CMC-NE's main campus with a comparable CT scanner. This determination is based on your representation that the existing 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 Construction, Acute and Home Care Licensure and Certification, and Radiation Protection 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,

Gloria C. Hale  
Project Analyst

Martha J. Frisone  
Assistant Chief, Certificate of Need

**Healthcare Planning and Certificate of Need Section**

[www.ncdhhs.gov](http://www.ncdhhs.gov)

Telephone: 919-855-3873 • Fax: 919-733-8139

Location: Edgerton Building • 809 Ruggles Drive • Raleigh, NC 27603

Mailing Address: 2704 Mail Service Center • Raleigh, NC 27699-2704

An Equal Opportunity/ Affirmative Action Employer



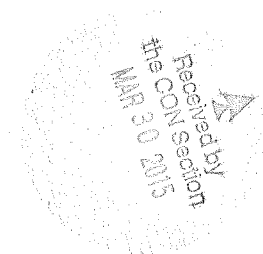
Ms. Elizabeth V. Kirkman  
April 13, 2015  
Page 2

cc: Construction Section, DHSR  
Radiation Protection Section  
Assistant Chief, Healthcare Planning



Carolinus HealthCare System

CH



Edward J. Brown III  
Chairman

Michael C. Tarwater, FACHE  
Chief Executive Officer

Joseph G. Piemont  
President & COO

March 25, 2015

Ms. Martha Frisone, Assistant Section Chief  
Healthcare Planning and Certificate of Need Section  
Division of Health Service Regulation  
N.C. Department of Health & Human Services  
809 Ruggles Drive  
Raleigh, NC 27603

RE: The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinus Medical Center-NorthEast –  
Exemption Notice for Acquisition of Replacement CT Scanner Equipment in the Radiology  
Department, Cabarrus County

Dear Ms. Frisone:

The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinus Medical Center-NorthEast (“CMC-NE”), seeks to acquire a Siemens SOMATOM Force Dual Source CT unit (“Replacement Equipment”). Please see Attachment A for a copy of CMC-NE’s current hospital license. The Replacement Equipment will replace CMC-NE’s current General Electric VCT 64 Slice Light Speed CT scanner (“Existing Equipment”). The Existing Equipment is currently housed and in use in room 13224 on Level 1 of CMC-NE’s main campus located at 920 Church Street North, Concord, NC 28025 (see Attachment B). The Replacement Equipment will be located in the same space.

The purpose of this letter is to provide the Agency with notice and to request a determination that CMC-NE’s purchase of the Replacement Equipment is exempt from Certificate of Need (“CON”) review under the replacement equipment exemption provisions contained in Session Law 2013-360, Section 12G.3(b) and Session Law 2013-363, Section 4.6 (which are codified at N.C. Gen. Stat. 131E-184(f)(1)-(3)).

The General Assembly has chosen to exempt certain, otherwise reviewable events from CON review. Among those exemptions is the acquisition of "replacement equipment," defined as follows in the CON law:

"Replacement equipment" means equipment that costs less than two million dollars (\$2,000,000) and is purchased for the sole purpose of replacing comparable medical equipment currently in use which will be sold or otherwise disposed of when replaced.

See N.C. Gen. Stat. 131E-176(22a). Under the new provisions found at N.C. Gen. Stat. 131E-184(f)(1)-(3), the CON law provides:

- (f) The Department shall exempt from certificate of need review the purchase of any replacement equipment that exceeds the two million dollar (\$2,000,000) threshold set forth in G.S. 131E-176(22) if all of the following conditions are met:
  - (1) The equipment being replaced is located on the main campus.
  - (2) The Department has previously issued a certificate of need for the equipment being replaced. This subdivision does not apply if a certificate of need was not required at the time the equipment being replaced was initially purchased by the licensed health service facility.
  - (3) The licensed health service facility proposing to purchase the replacement equipment shall provide prior written notice to the Department, along with supporting documentation to demonstrate that it meets the exemption criteria of this subsection.

See Session Law 2013-360, Section 12G.3(b) and Session Law 2013-363, Section 4.6. The term "main campus" was defined in Session Law 2013-360, Section 13G.3(a) (codified N.C. Gen. Stat. 131E-176(14n)) as follows:

- (14n) "Main campus" means all of the following for the purposes of G.S. 131E-184(f) and (g) only:
  - a. The site of the main building from which a licensed health service facility provides clinical patient services and exercises financial and administrative control over the entire facility, including the buildings and grounds adjacent to that main building.
  - b. Other areas and structures that are not strictly contiguous to the main building but are located within 250 yards of the main building.

The Existing Equipment is currently located in room 13224 on Level 1 of CMC-NE's main campus and the Replacement Equipment will be located within the same space (see Attachment B). The main hospital building from which Carolinas Medical Center-NorthEast exercises financial and administrative control over Carolinas Medical Center-NorthEast services is located at 920 Church Street North, Concord, NC 28025 (see Attachment B). Carolinas Medical Center-NorthEast's President's office is located on the first floor of the main hospital building.

In addition to the foregoing, to qualify for this exemption, the replacement equipment must be “comparable” to the equipment it replaces and the equipment being replaced must be “sold or otherwise disposed of when replaced.” CMC-NE’s proposal qualifies for this exemption.

**A. Cost of the Replacement Equipment**

The purchase price of the Replacement Equipment is \$2,025,050 (\$1,885,000 CT + \$129,050 Tax + \$11,000 Freight). The purchase price of the Injector is \$53,940 (\$51,900 Injector + \$1,700 + \$340 Freight). CMC-NE will utilize a mobile CT while this unit is being replaced. Quotes for the CT unit from Siemens, the Injector from Bayer HealthCare, and the Mobile CT from Insight Imaging are provided in Attachment C. The projected total capital cost of the project is \$2,437,190 and includes the removal of the existing equipment, installation of the Replacement Equipment, and the utilization of the interim mobile CT unit. The total capital cost schedule and the certified cost estimate of the renovation required to install the new equipment are provided in Attachment D.

**B. Equipment Being Replaced is Located on the Main Campus**

The Existing Equipment is currently located in room 13224 on Level 1 of CMC-NE’s main campus (see Attachment B). The Replacement Equipment will be located in the same space in room 13224 on Level 1 of CMC-NE’s main campus (see Attachment B).

**C. Certificate of Need Issued for Equipment Being Replaced**

This proposal also fits within the new exemption criterion in Section 131E-184(f)(2) because the Department issued an exemption request for the Existing Equipment (see Attachment E). The Existing Equipment was purchased in 2005.

**D. Comparable Equipment**

The CON rule codified as 10A N.C.A.C. 14C.0303 (the “Regulation”) defines “comparable medical equipment” in subsection (c) as follows:

“Comparable medical equipment” means equipment which is functionally similar and which is used for the same diagnostic or treatment purposes.

CMC-NE intends to use the Replacement Equipment for substantially the same CT procedures for which it currently uses the Existing Equipment. The Existing Equipment is a GE VCT 64 Slice Light Speed CT scanner that was installed new in 2005. This Existing Equipment has been used for CT procedures since installation.

The Replacement Equipment will perform all procedures currently performed on the Existing Equipment. Although it possesses some expanded capabilities due to

technological improvements, the Replacement Equipment will perform the same CT procedures (see Attachment F for the Equipment Brochure). The Replacement Equipment is therefore “comparable medical equipment” as defined in Subsection (c).

Furthermore, CMC-NE does not intend to increase patient charges or per procedure operating expenses within the first 12 months after equipment acquisition. For further equipment comparison, please refer to Attachment G, the Equipment Comparison Chart.

Subsection (d) of the regulation further provides:

- (1) it has the same technology as the equipment currently in use, although it may possess expanded capabilities due to technological improvements; and
- (2) it is functionally similar and is used for the same diagnostic or treatment purposes as the equipment currently in use and is not used to provide a new health service; and
- (3) the acquisition of the equipment does not result in more than a 10.0 percent increase in patient charges or per procedure operating expenses within the first twelve months after the replacement equipment is acquired.

The Replacement Equipment will meet all three of tests set out in Subsection (d). The Replacement Equipment satisfies the technology and functionality tests in Subsection (1) and (2) as discussed above and identified in the Comparison Chart (Attachment G). Moreover, CMC-NE represents the use of the Replacement Equipment will not result in the types of expense or charge increases described in Subsection (d)(3).

The Existing Equipment is currently in use and documentation provided in Attachment H indicates that 16,075 procedures were performed in 2014.

#### **E. Disposition of Equipment**

Please see Attachment I for a letter documenting the Existing Equipment will be taken out of service and will not be re-sold or re-installed in North Carolina without appropriate certificate of need approval.

**CONCLUSION:**

Based on the foregoing information, CMC-NE hereby requests that the Agency provide a written response confirming that the acquisition of the Replacement Equipment described herein is exempt from CON review. If the Agency needs additional information to assist in its consideration of this request, please let us know.

Thank you for your consideration of this notice.

Sincerely,



Elizabeth V. Kirkman  
Assistant Vice President  
CHS Management Company

Attachments

cc: F. Del Murphy, Jr., CHS Management Company  
Phyllis Wingate, President, Carolinas Medical Center - NorthEast

# Attachment A



# State of North Carolina

## Department of Health and Human Services Division of Health Service Regulation

*Effective January 1, 2015 this license is issued to*

*The Charlotte- Mecklenburg Hospital Authority  
to operate a hospital known as*

*Carolinas Medical Center-NorthEast*

*located in Concord, North Carolina, Cabarrus County*

*This license is issued subject to the statutes of the  
State of North Carolina,  
is not transferable and shall expire December 31, 2015  
License Number: H0031*

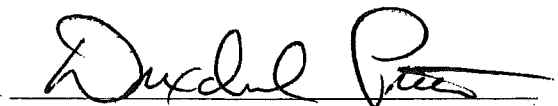
**Bed Capacity: 457**  
*General Acute 447, Psych 10*

License Categories: Substance Abuse Intensive Outpatient Program 27G .4400  
Partial Hospitalization 27G.1100

Authorized by:



Secretary, N.C. Department of Health and  
Human Services

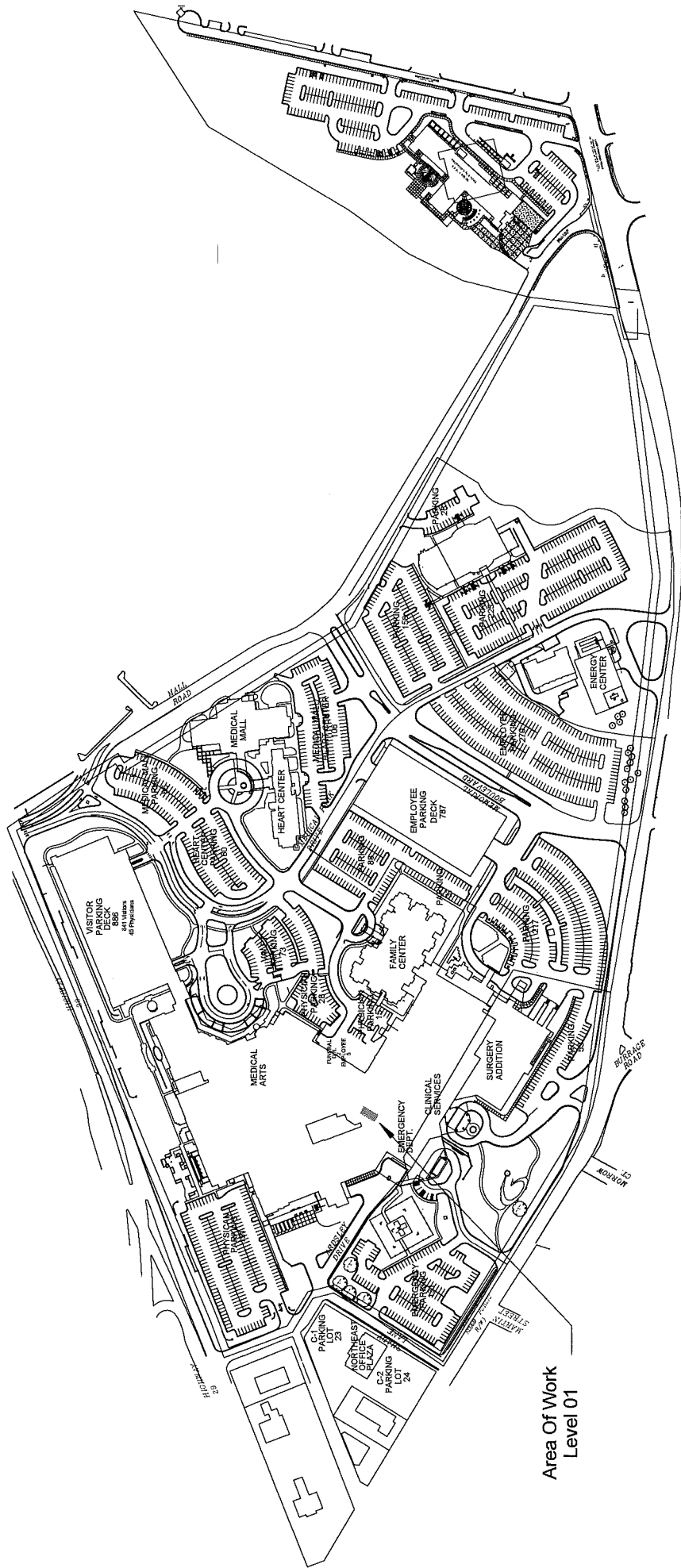


Director, Division of Health Service Regulation

# Attachment B

**COLOR KEY**

-  255-255-155 EXISTING BUILDING
-  255-155-000 RENOVATION - LEVEL 01 - 525 SQ FT



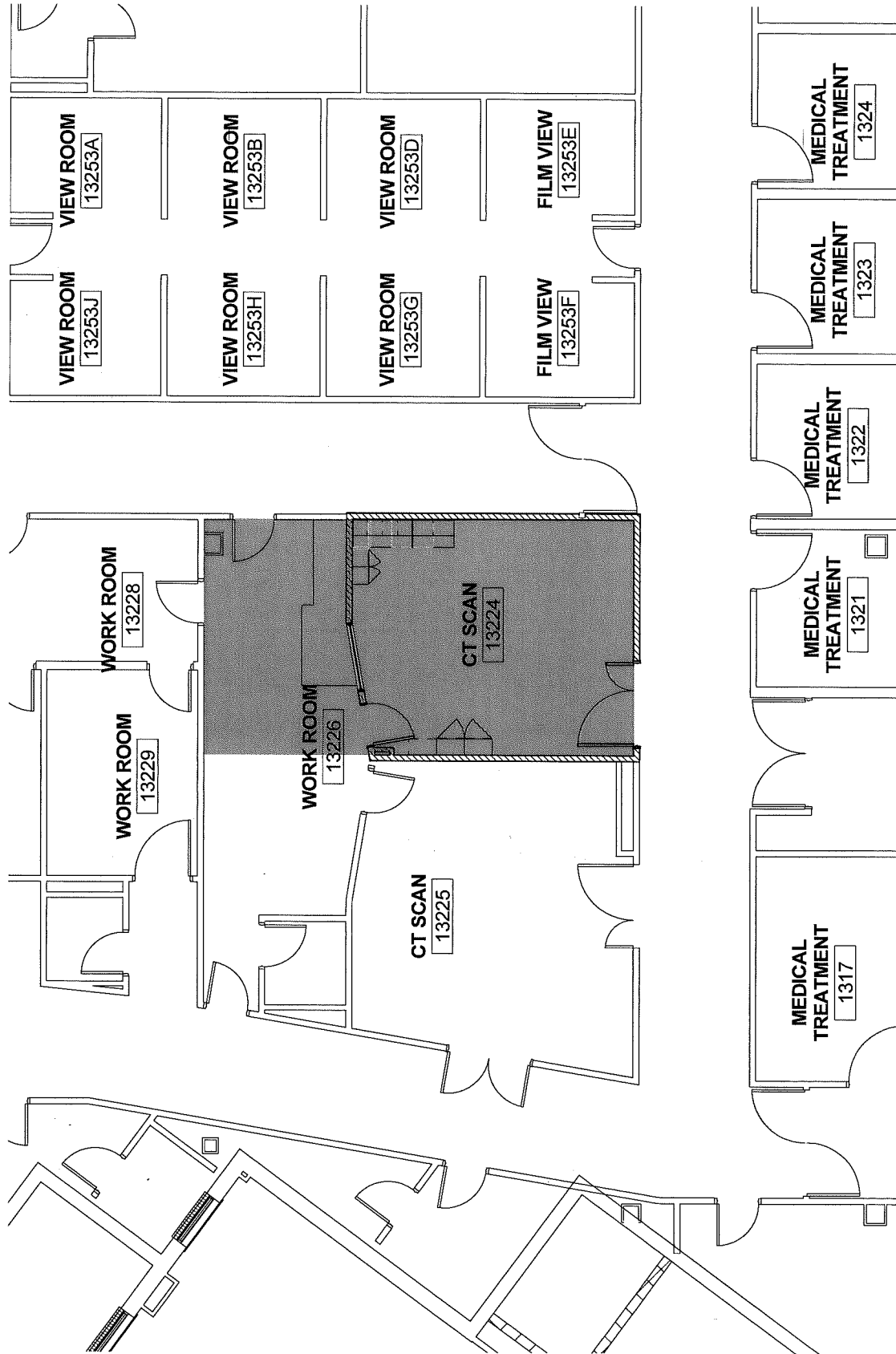
Area Of Work  
Level 01

**OVERALL PLAN**



COLOR KEY

- 255-255-155 EXISTING BUILDING
- 255-155-000 RENOVATION - LEVEL 01 - 525 SQ FT



# ENLARGED FLOOR PLAN

Carolinas HealthCare System

March 18, 2015

CMCNE CT Replacement



# Attachment C

# SIEMENS

Siemens Medical Solutions USA, Inc.  
51 Valley Stream Parkway, Malvern, PA 19355  
Fax: (336) 856-9995

SIEMENS REPRESENTATIVE  
Edwin Winicki - (336) 688-0978

Customer Number: 0000035965

Date: 12/20/2014

**CAROLINAS HEALTHCARE SYSTEM**  
1000 BLYTHE BLVD  
CHARLOTTE, NC 28203

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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.

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<b>Quote Nr:</b>	<b>1-A37UPO, Rev. 0</b>
<b>Trade:</b>	<b>GE LS-4</b>
<b>Terms of Payment</b>	<b>00% Down, 80% Delivery, 20% Installation</b>
<b>Purchasing Agreement</b>	<b>Free On Board: Destination Premier Purchasing Partners</b>
<b>Terms and Conditions</b>	<b>Premier terms and conditions apply</b>
<b>Proposal Valid Until</b>	<b>9/30/2015</b>

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### Siemens Definition FORCE

Qty	Part No.	Item Description
1	14440623	<b>SOMATOM Force</b> 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	<b>CT Replacement SOMATOM Force</b> SOMATOM Force base configuration.

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Qty	Part No.	Item Description
1	14440625	<b>SAFIRE #AWP</b> The Sinogram Affirmed Iterative Reconstruction (SAFIRE) enhances spatial resolution, reduces image noise and increases sharpness by introducing multiple iteration steps in the reconstruction process. The resulting image quality enables to reduce dose by up to 60%.
1	14440672	<b>ADMIRE</b> 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	14410507	<b>X-CARE</b> Partial scanning to reduce direct X-ray exposure for the most dose-sensitive body regions, e.g. the breasts, thyroid gland or eye lens
1	14420827	<b>FAST CARE Platform</b> 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	14441180	<b>CARE Child</b> Dedicated pediatric CT imaging, including 70 kV scan modes and specific CARE Dose4D curves and protocols
1	14433987	<b>FAST Planning #AWP</b> Direct, organ-based setting of scan and recon ranges for a faster and more standardized workflow
1	14433988	<b>FAST Spine #AWP</b> Accurate and anatomically aligned preparation of spine recons with just a single click.
1	14440678	<b>FAST 3D Align</b> FAST 3D Align automatically corrects misalignment of anatomic structures, organs of the patient. It aligns those to fit it to the selected reconstruction plane for a highly automated reconstruction workflow. Additionally it minimizes the black area in the image through automatically adjusts recon field of view selection.
1	14441045	<b>Rear cover incl. gantry panels</b> Standard CT gantry back cover, including two gantry panel control units.
1	14406485	<b>Keyboard English</b> Keyboard in the above-mentioned language.
1	14403162	<b>Hose pipe 20 m insulated</b> Hose pipes to connect the "Cooling System" with the gantry.
1	14440676	<b>Cable loom 16 m</b> Cable loom used to connect the power distribution system (PDS) with the gantry.
1	14440671	<b>Earthquake kit prepared</b> 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	14406461	<b>syngo Expert-I #AWP</b> Expert-i enables the physician to interact with the syngo CT Workplace from virtually anywhere in your hospital.
1	14440651	<b>Tunnel Light</b> 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.

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Edwin Winicki - (336) 688-0978

Qty	Part No.	Item Description
1	14440652	<b>Ring Light</b> 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	14440744	<b>CT Acute Care Engine – Scan Opt</b> The CT Acute Care Engine provides the following: - Extended FoV of 78 cm for obese patient imaging - HeartView, including - Prospectively triggered high-pitch Turbo Flash Spiral, e.g. for sub-mSv cardiac scanning - ECG-Gated Spiral for high and irregular heart rates - Cardio Sequence for moderate heart rates - 0.25 s rotation time to freeze any motion (e.g. cardiac motion) - MinDose ECG Pulsing for dose saving in cardiac function - Edge Technology for 0.30 mm spatial resolution - Cardio BestPhase Plus for optimal cardiac phase selection
1	14440745	<b>CT Acute Care Engine Pro – Scan Opt</b> The CT Acute Care Engine Pro provides the following: - Adaptive 4D Spiral acquisition for whole organ perfusion - UHR with extra wide comb for high isotropic resolution - Tilttable (adjustable) head holder for optimal positioning of stroke patients
1	14440654	<b>Physiological Monitoring Module</b> The Physiological Monitoring Module allows to connect a 3 Channel ECG cable for ECG controlled cardiac acquisition.
1	14403008	<b>ECG Cable IEC2 #D</b> ECG cable, IEC2 (AHA/US color coding).
1	14440680	<b>syngo Dual Energy Scan with SPS II</b> 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	<b>FAST DE (DE WorkStream 4D)</b> 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	14440653	<b>Patient Table</b> Patient table to support ultra-fast spiral scanning and up to 200cm scan range. Motor-driven table height adjustment 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	ADAPT_DOSE _SHIELD	<b>Adaptive Dose Shield</b> Adaptive Dose Shield for spiral acquisition to eliminate pre- and post-spiral over-radiation.
1	FAST_ADJUST	<b>FAST Adjust</b> 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_A SSIST	<b>FAST Scan Assistant</b> 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.



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Edwin Winicki - (336) 688-0978

Qty	Part No.	Item Description
1	CARE_KV	<b>CARE kV</b> 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%.
1	CARE_DOSE4 D	<b>CARE Dose4D</b> 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	CT_LUNGIMA GASPL	<b>Lung Imaging</b> This SOMATOM Definition scanner offers two specific scan protocols to provide Lung Imaging at 1.3 mGy CTDI or greater and for use with post-processing applications
1	CARE_PROFL E	<b>CARE Profile</b> CARE Profile: Visualization of the dose distribution along the topogram prior to the scan
1	CARE_DASHB OARD	<b>CARE Dashboard</b> 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	ACCESS_PRO TECT	<b>Access Protection</b> Scan Protocols are password protected allowing only authorized staff members to access and permanently change protocols
1	DICOM_SR	<b>DICOM SR Dose Reports</b> DICOM structured file allows for the extraction of dose values (CTDIvol, DLP)
1	DOSE_ALERT	<b>Dose Alert</b> 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_NOTIFI CATION	<b>Dose Notification</b> 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	NEMA_XR-29	<b>NEMA_XR-29 Standard</b> 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_PM	<b>CT Project Management</b> A Siemens Project Manager (PM) will be the single point of contact for the implementation of your Siemens 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_AD DL_RIG	<b>Add'l/Out of Scope Rigging</b>
1	CT_STD_RIG_I NST	<b>CT Standard Rigging and Installation</b> 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	<b>Low Contrast CT Phantom &amp; Holder</b>
1	PSPD250480Y 3K	<b>Surge Protective Device (SPD)</b>

# SIEMENS

Siemens Medical Solutions USA, Inc.  
 51 Valley Stream Parkway, Malvern, PA 19355  
 Fax: (336) 856-9995

**SIEMENS REPRESENTATIVE**  
 Edwin Winicki - (336) 688-0978

Qty	Part No.	Item Description
1	CTSDEF01	<b>CT Slicker</b> 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	<b>Force Comp Conversion Bonus</b>
2	CT_DEFSYNG O_BCLS	<b>Definition Systems Basic syngo Class</b> Tuition for (1) imaging professional to attend Siemens Classroom Course at Siemens Training Center. The objectives of this basic syngo class are to introduce the user to the Siemens SOMATOM CT Definition user interface of the syngo platform, scanning parameters and their effect on image quality, and instructions on building protocols, demonstration of software functions, and hands-on sessions. This class includes lunch, economy airfare, and lodging for (1) imaging professional. All arrangements must be arranged through Siemens designated travel agency. 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_INITIAL_32	<b>Initial onsite training 32 hrs</b> 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_FOLLOWU P_32	<b>Follow-up training 32 hrs</b> 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	<b>Additional onsite training 32 hours</b> 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.

Sell Price (excluding trade): \$ 1,885,000  
 GE LS-4 Trade Value: (\$105,000)  
 Final Price (including trade): \$1,780,000

Estimated Tax (final tax is computed at time of installation): \$129,050

# Bayer HealthCare



## Quotation

Quote To:  
CAROLINAS MEDICAL  
CENTER-NORTHEAST  
920 Church St N  
CONCORD NC 28025-2983  
USA

Bayer HealthCare LLC

Quotation number: 0020014711  
Customer number: 0000089675  
Date: 03/23/2015  
Page: 1

Valid from: 03/23/2015 to 05/23/2015

Trey Karn  
Professional Sales Consultant  
864-415-2397  
trey.karn@bayer.com

**We deliver according to the following terms and conditions:**

**Currency: USD**

**Terms of payment:** 30 d. w/o discount of inv. net

**Terms of delivery:** Free carrier FOB SHIPPING POINT

Item	Part No	Qty	Unit Price	UoM	Amount
1	81058881				
	SCT 322	1 PCE	49,500.00	1 PCE	49,500.00
	STELLANT DUAL W/ CERTEGRA WKS & OCS				
	Discount (Value)		20,290.00-		20,290.00-
	Discount (Value)		8,960.00-		8,960.00-
	Net value		20,250.00		20,250.00
	**GPO MEMBER DISCOUNT**				
	**SPECIAL DISCOUNT PRICING**				
2	59943360				
	INS SCT CS	1 PCE	2,650.00	1 PCE	2,650.00
	INSTALLATION - STELLANT WITH OCS				
	Discount (Value)		250.00-		250.00-
	Net value		2,400.00		2,400.00
<b>Sub Total</b>					<b>22,650.00</b>

**If pricing and terms of this order are based upon your current Group Purchasing Organization (GPO) affiliation, any change to your current affiliation may require a new quote or updated terms and pricing.**

**When applicable, State and Local taxes will be calculated on the order. If you are exempt from taxes, contact customer support at 1(800)633-7231. Thank you for your order!**

Bayer HealthCare



## Quotation

---

Total

22,650.00

**NOTE: If using signed quote as a purchase order please complete the following information:**

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

PO #: \_\_\_\_\_

Phone #: \_\_\_\_\_

**If pricing and terms of this order are based upon your current Group Purchasing Organization (GPO) affiliation, any change to your current affiliation may require a new quote or updated terms and pricing.**

*When applicable, State and Local taxes will be calculated on the order. If you are exempt from taxes, contact customer support at 1(800)633-7231. Thank you for your order!*

# Bayer HealthCare



## BAYER PRODUCT TERMS AND CONDITIONS

If Customer is a member of a group purchasing organization ("GPO") who has a contract with Bayer, the terms of that GPO Agreement will supercede the terms herein.

The following terms and conditions will not apply to the license of Bayer's Radimetrics or Certegra products. Such products are subject to a separate license agreement.

1. **Modifications.** The prices and terms on this Quote are not subject to verbal changes or other agreements unless approved in writing by Bayer.
2. **Acceptance.** Bayer's products and services are sold only under the terms and conditions stated on this quotation. Acceptance of any Purchase Order is expressly and exclusively made conditional on your assent to these terms and conditions. Any different or additional terms and conditions that may appear in your Purchase Order or any other document sent by you, shall have no effect. Bayer expressly objects to and rejects all inconsistent or additional terms, conditions and limitations contained on any of your forms or other writings. If you do not communicate your objection to these terms and conditions in writing and within a reasonable time, or if you accept the goods covered by this Quote, you will be deemed to have accepted these terms and conditions and they will control in all instances. If the Products include embedded software or if you are purchasing software, **BY HAVING THE SOFTWARE INSTALLED AND USING THE SOFTWARE PURCHASED HEREUNDER, YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS QUOTE, DO NOT INSTALL OR USE THE SOFTWARE AND NOTIFY BAYER IMMEDIATELY.**
3. **Pricing.** Prices are based on costs and conditions existing on the date of this Quote and may be changed by Bayer before final acceptance. The pricing for products provided pursuant to this Quote may reflect or be subject to discounts, rebates, or other price reduction programs. Please be advised that you are obligated to: a) fully and accurately disclose the amount of any such discounts, rebates, or other price reductions in your cost reports or claims for reimbursement to Medicare, Medicaid, or health care programs requiring such disclosure and b) provide such documentation to representatives of the Secretary of the Department of Health and Human Services and state agencies upon request. Unless noted otherwise, the value of any product listed as \$0.00 on this Quote may constitute a discount that you should evaluate when filing such reports. You may request additional information from Bayer in order to meet your reporting or disclosure obligations, by writing to the address set forth in this Quote. All payments are due net thirty (30) days on the total invoiced amount. For all new customers Bayer requires a thirty percent (30%) pre-payment for all capital equipment orders, unless otherwise agreed to by Bayer. Bayer must approve any payment terms other than net thirty (30) days.
4. **Shipping.** All shipping dates are tentative. Bayer will make every reasonable effort to meet shipping dates referenced in this Quote. However, Bayer will not be liable for its failure to meet any such date.
5. **Installation.** The cost of installation is not included in the product price and is your responsibility unless otherwise stated. For details on equipment installation, you should consult with your Bayer Sales Representative or refer to your Products Manual, which is included with your equipment.

If this Quote includes installation of an overhead counterpoise system (OCS) it is your responsibility to ensure a suitable mounting location for the system. The counterpoise ceiling plate is required to be installed prior to Bayer installation of the counterpoise system and installed in accordance with the specifications listed in the installation manual. The OCS ceiling plate should always be installed by a qualified Structural Engineer and/or Architect. In addition, if applicable building codes require the use of a conduit, you are responsible for ensuring that a conduit is available prior to Bayer's installation.

If this Quote includes a Certo wireless network it is your responsibility to ensure the approval of the Information Technology Department to allow the operation of the wireless network at your site.

If this Quote includes a Spectris Solaris with an Integrated Continuous Battery Charging System (iCBC), installation will require a standard power outlet in the scan room, or authorization to install a filter through the penetration panel.
6. **License.** If the Products include embedded software, or if you are purchasing software, Bayer grants to you a non-exclusive license to use such software provided by Bayer, solely in connection with, or to operate, the Products. Use of the software for any other purpose is strictly prohibited. This license is effective on the date you begin using the Products and software and will continue in effect unless you return the Products or software or if the license is terminated because

**Please reference the quote number on your PO and fax to 412-406-0952**

# Bayer HealthCare



you breach any provision of these Terms. Upon termination you shall immediately cease use of all software and shall return the Products and software to Bayer. The software copyright is owned by Bayer and is protected by United States copyright laws and international treaty provisions. Bayer does not transfer title to the software to you, but retains the rights to make and license the use of all copies. You shall not copy, translate, disassemble, or decompile nor create or attempt to create, by reverse engineering or otherwise, the source code from the object code of the software. You are not permitted to modify or make derivative works of the software and ownership of any unauthorized modification or derivative work shall vest in Bayer.

7. Warranty. Bayer warrants that all new Bayer products are free from defects in workmanship or material under proper, normal use and service for a period of one year (12 months) from shipment, unless a longer period is provided on the warranty with the products, or as otherwise provided herein.

Bayer warrants that all refurbished Bayer products shall perform in accordance with the documentation provided, under proper, normal use and service for a period of the shorter of a) 90 days from installation or b) six months from shipment, unless a longer period is provided on the warranty with the products, or as otherwise provided herein.

If this Quote includes a Monitor, peripheral accessories on the Monitor such as pulse oximeter sensors, extension cables, power cables, fiber optic cables, ECG leads, capnography accessories (excluding patient connections), blood pressure cuffs, batteries, and extension tubing are warranted for a period of 90 days from the date of installation, but not to exceed six months from the date of shipment.

If this Quote includes disposable products or angiographic catheters, Bayer's warranty shall be limited to repair or replacement of any defective disposable product or angiographic catheter upon receipt of the defective product and a Bayer Return Goods Authorization. You acknowledge that the disposables and the equipment are a system and your actions regarding your equipment may invalidate your warranty on the disposables.

During the warranty period, there shall be no charge for any action deemed necessary by Bayer, including parts, travel, or labor to fulfill the terms of the warranty, during local business hours of 8:30 a.m. to 5:00 p.m., Monday through Friday, except holidays.

Your actions may invalidate this warranty. If Bayer determines that an equipment or disposable problem is due to any of the following, you agree to pay Bayer for all labor, travel, material handling and shipping at Bayer's, or Bayer's agents, standard rates:

- a) Malfunction or damage due to spillage of any type of fluid in or on the unit.
- b) Malfunction due to operator error, including failing to follow specified provisions of the Operations Manual.
- c) Malfunction or damage due to unauthorized modification or repair. Unauthorized actions may jeopardize functionality, reliability, or operator and patient safety. Therefore any unauthorized modification or repair shall render this warranty void and relieve Bayer from any further obligation. Bayer must review and authorize all modifications and repairs. This service may be obtained by contacting the Bayer Service Department.
- d) Malfunction or damage due to the use of non-Bayer or non-approved accessories. The use of accessories in connection with the equipment may jeopardize functionality, reliability or operator and patient safety. Therefore any use of non-Bayer or non-approved accessories (such as non-Bayer disposables or in the case of any PET/CT product, the use of vials or vial shields that are not approved by Bayer) shall render this warranty void and relieve Bayer from any further obligation.
- e) Damage by fire, floods, or other disaster commonly known as "Acts of God".
- f) If the Products include any Counterpoise system, any system malfunction, damage or failures due to improper installation or not meeting Bayer's specific requirements for level and plumb and/or loading as specified in the Bayer manuals.
- g) If the Products include any Counterpoise system, any ceiling or wall support structure used to mount or support an Injector Head Counterpoise System is excluded from Bayer's warranty. Bayer does not in any way warrant such structure.

8. Warranty Exclusions. EXCEPT AS PROVIDED IN THE ABOVE WARRANTY SECTION, BAYER EXPRESSLY DISCLAIMS ALL WARRANTIES OR CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY,

**Please reference the quote number on your PO and fax to 412-406-0952**

# Bayer HealthCare



NONINFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE (WHETHER OR NOT BAYER IS AWARE OF YOUR INTENDED USE OF THE PRODUCT), AND ALL SUCH WARRANTIES ARE EXPRESSLY EXCLUDED. IN NO EVENT SHALL BAYER BE LIABLE FOR ANY LOST PROFITS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OR OPERATION OF BAYER'S PRODUCT OR SERVICE. Some states do not allow the exclusions on limitation of incidental or consequential damages, so the above limitations may not apply. This Limited Warranty gives you specific legal rights and you may also have other rights.

9. Software Warranty. If the Products include embedded software or if you are purchasing software, Bayer warrants that the software will substantially conform to the functional specifications contained in the Operations Manual for one year following delivery. This warranty shall not apply if you use the software in a manner that is not authorized or not in accordance with the user instructions or if you modify the Products or the software or if a party other than Bayer provides service to the Products or software. Bayer does not warrant that the software will operate uninterrupted or that it will be free from minor defects or errors that do not materially affect its performance. Your sole and exclusive remedy for any damages or loss in any way connected with the software whether due to Bayer's negligence or breach of any other duty shall be, at Bayer's option: i) to bring the performance of the software into substantial compliance with the functional specifications or ii) return of an appropriate portion of any payment by you with respect to the portion of the software that is not functioning.

10. Indemnification. Bayer agrees to indemnify, defend and hold you harmless from any liability, loss, expense, cost, claim or judgment (including attorneys fees), arising out of any claim for property damage, or personal injury or death where the product is alleged to have caused or contributed to the damage, injury or death, provided that this indemnification does not extend to injuries, damages or death to the extent caused by the negligence, reckless disregard or intentional acts of you or any third party.

11. Force Majeure. Bayer will not be responsible for delays or non-performance directly or indirectly caused by any acts of God, fire, explosion, flood, war, accident, action by governmental authority, inability to procure supplies and raw materials, delays in transportation, work stoppage, court order, and other causes beyond Bayer's reasonable control.

12. Compliance With Laws/Export. In addition to any rights and remedies specifically identified here in this Quote, Bayer shall have all rights and remedies conferred by law. Bayer shall not be required to perform its obligations under this Quote if you have defaulted (e.g. failed to pay) under this Quote or any other contract involving Bayer. This Agreement shall be construed in accordance with the laws of the Commonwealth of Pennsylvania, United States of America. You warrant that you are and will remain in compliance with all export and reexport requirements, laws and regulations of the United States of America and any other applicable export and reexport laws and regulations.

13. HIPAA. Bayer represents that it is not a Business Associate as defined in the Health Insurance Portability and Accountability Act ("HIPAA"). The functions Bayer is required to perform hereunder do not require the use or disclosure of Protected Health Information ("PHI"). To the extent any disclosure of PHI does occur, it is incidental and covered under the incidental disclosure rule found in 45 CFR 164.502(a)(1). In addition, to the extent any such incidental disclosure does occur, Bayer agrees to keep all such information confidential.

**Please reference the quote number on your PO and fax to 412-406-0952**

Insight Imaging  
 26250 Enterprise Ct., Suite 100  
 Lake Forest, CA 92630  
 888.367-4327  
 www.insighthealth.com



**Carolinas HealthCare System - NorthEast**

Donna Gebhardt  
 920 Church Street  
 Concord, NC 28025  
 704-403-3570  
 Donna.gebhardt@carolinashealthcare.org

February 13, 2015

**Interim Mobile CT Quote**

<b>Equipment</b>	GE LightSpeed 16 slice CT system in a mobile coach
<b>Term</b>	Approximately 3 months. Minimum rental term: 14 days. After 14 days, the contract can be terminated with as little as 48 hours notice.
<b>Days per week</b>	Seven (7) days a week
<b>Start date</b>	April, 2015
<b>GE service hours</b>	OEM full service agreement: Monday through Friday 8:00 am to 9:00 pm., excluding holidays
<b>Staff</b>	Qualified technologists shall be provided by the Lessee
<b>Applications</b>	If requested, applications training may be provided for an additional charge of \$1,200 per day
<b>Payment terms</b>	Net thirty (30) days from date of invoice
<b>Financial considerations</b>	Rental rate of \$950.00 per day, plus a one-time shipping fee of \$4,500 and a \$350 cleaning fee. Rates do not include any applicable sales tax

*Pricing will remain valid for sixty (60) days from the date of this quotation.  
 This quote is contingent upon equipment availability.*

Thank you for your interest in Insight Imaging. If you have any questions regarding this quote, please contact:

**Mark Hoelscher**  
 Executive Director of Sales  
 816-741-5878  
 mhoelscher@insighthealth.com

This proposal contains confidential and proprietary information and is intended only for the parties identified in this proposal. This proposal may not be copied or distributed, in whole or part, and its contents may not be revealed in any manner to outside parties without the specific prior written consent of InSight Health Corp.





## Equipment Description

Carolinas HealthCare System - NorthEast

February 15, 2015

### GE LightSpeed 16 Slice Mobile CT System

<b>Equipment Configuration</b>	General Electric LightSpeed 16 slice CT system with a Performix Ultra tube
<b>Software Level</b>	N/A
<b>Software Features</b>	Smart Tools, 0.1 second scan, Xtream ready console, volume analysis, volume rendering, navigator, autobone, CT Advanced vessel analysis
<b>Minimum Slice Thickness</b>	.625mm
<b>Additional Equipment</b>	MedRad power injector
<b>Mobile Coach</b>	48' (or 42') x 8' x 13.5' self-shielded coach
<b>Coach Manufacturer</b>	Ellis & Watts
<b>Power Requirements</b>	480 volts, 60 Hz, 85 KV, 200 amp, 3 phase, wye with neutral ground
<b>Power Cord Receptacle</b>	Facility must provide a Russelstoll (DF250FRAB) receptacle

For additional information or a detailed cut sheet, please contact your Insight Sales or Operations team member at (888) 367-4327

# Attachment D

**PROPOSED TOTAL CAPITAL COST OF PROJECT**

**Project name:** CMC NorthEast CT Replacement

**Provider/Company:** Carolinas HealthCare System

**A. Site Costs**

(1) Full purchase price of land		<u>N/A</u>
Acres	Price per Acre	\$ _____
(2) Closing costs		<u>N/A</u>
(3) Site Inspection and Survey		<u>N/A</u>
(4) Legal fees and subsoil investigation		<u>N/A</u>
(5) Site Preparation Costs		
Soil Borings	_____	
Clearing-Earthwork	_____	
Fine Grade for Slab	_____	
Roads-Paving	_____	
Concrete Sidewalks	_____	
Water and Sewer	_____	
Footing Excavation	_____	
Footing Backfill	_____	
Termite Treatment	_____	
Other (Specify)	_____	
Sub-Total Site Preparation Costs		<u>N/A</u>
(6) Other (Specify)		<u>N/A</u>
(7) <b>Sub-Total Site Costs</b>		<u>N/A</u>

**B. Construction Contract**

(8) Cost of Materials		
General Requirements	<u>included</u>	
Concrete/Masonry	<u>included</u>	
Woods/Doors & Windows/Finishes	<u>included</u>	
Thermal & Moisture Protection	<u>included</u>	
Equipment/Specialty Items	<u>included</u>	
Mechanical/Electrical	<u>included</u>	
Other (Specify)	<u>included</u>	
Sub-total Cost of Materials		<u>included</u>
(9) Cost of Labor		<u>included</u>
(10) Other (Specify)		<u>included</u>
(11) <b>Sub-Total Construction Contract</b>		<u>\$214,000</u>

**C. Miscellaneous Project Costs**

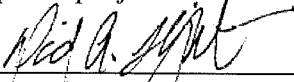
(12) Building Purchase		<u>N/A</u>
(13) Fixed Equipment Purchase/Lease		<u>\$2,078,990</u>
(14) Movable Equipment Purchase/Lease (Mobile CT Lease)		<u>\$65,000</u>
(15) Furniture		<u>N/A</u>
(16) Landscaping		<u>N/A</u>
(17) Consultant Fees		
Architect and Engineering Fees	<u>\$37,800</u>	
Legal Fees	<u>N/A</u>	
Market Analysis	<u>N/A</u>	
Other (Specify)	<u>N/A</u>	
Other (Abatement)	<u>N/A</u>	
Sub-Total Consultant Fees		<u>\$37,800</u>
(18) Financing Costs (e.g., Bond, Loan, etc.)		<u>N/A</u>
(19) Interest During Construction		<u>N/A</u>
(20) Other (Contingency)		<u>\$41,400</u>
(21) <b>Sub-Total Miscellaneous</b>		<u>\$2,223,190</u>
(22) <b>Total Capital Cost of Project (Sum A-C above)</b>		<u><u>\$2,437,190</u></u>

**PROPOSED TOTAL CAPITAL COST OF PROJECT**

**Project Name:**

**Provider/Company:**

*I certify that, to the best of my knowledge, the above construction related costs of the proposed project named above are complete and correct.*



NC 3978

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*(Signature of Licensed Architect or Engineer)*

# Attachment E



North Carolina Department of Health and Human Services  
Division of Facility Services  
Certificate of Need Section  
2704 Mail Service Center ■ Raleigh, North Carolina 27699-2704

Michael F. Easley, Governor  
Carmen Hooker Odom, Secretary

<http://facility-services.state.nc.us>

Lee Hoffman, Section Chief  
Phone: 919-855-3873  
Fax: 919-733-8139

July 7, 2005

Terrill Johnson Harris  
Smith Moore LLP  
PO Box 21927  
300 North Green Street, Suite 1400  
Greensboro, NC 27401

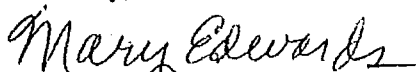
RE: Exempt from Review/Cabarrus Memorial Hospital d/b/a NorthEast Medical Center/Replace existing CT Scanner with a General Electric LightSpeed VCT CT scanner /Cabarrus County


Dear Ms. Harris:

In response to your letter of July 5, 2005, the above referenced proposal is exempt from certificate of need review in accordance with N.C.G.S 131E-184(a)(7). Therefore, you may proceed to acquire, without a certificate of need, the General Electric LightSpeed VCT CT scanner scanner to replace the existing GE Medical Cti CT scanner, serial number 0000308038. This determination is based on your representations that the existing unit will be removed from North Carolina and will not be used again in the State without first obtaining a certificate of need. Further please be advised that as soon as the replacement equipment is acquired, you must provide the CON Section and the Medical Facilities Planning Section with the serial number of the new equipment to update the inventory, if not already provided.

It should be noted that this 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 Agency and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

  
Mary Edwards  
Project Analyst

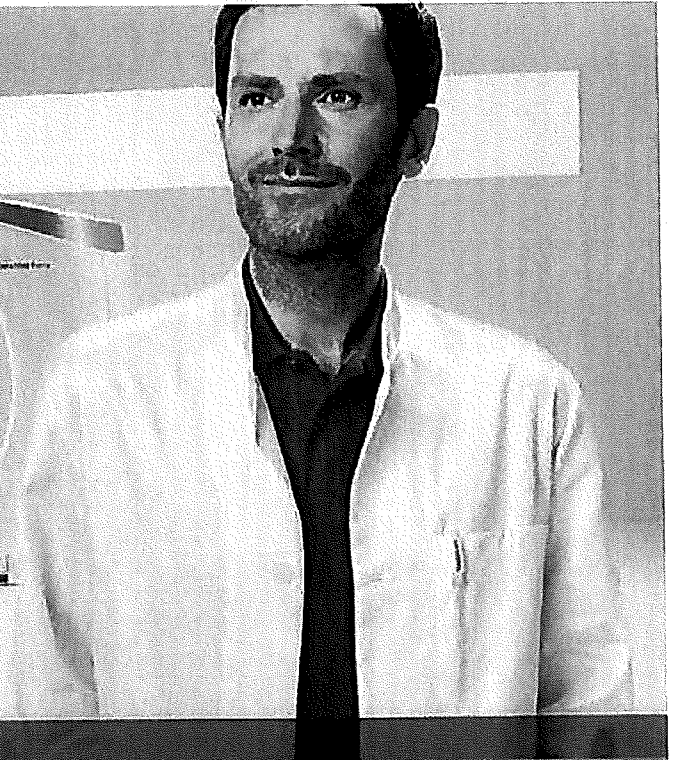
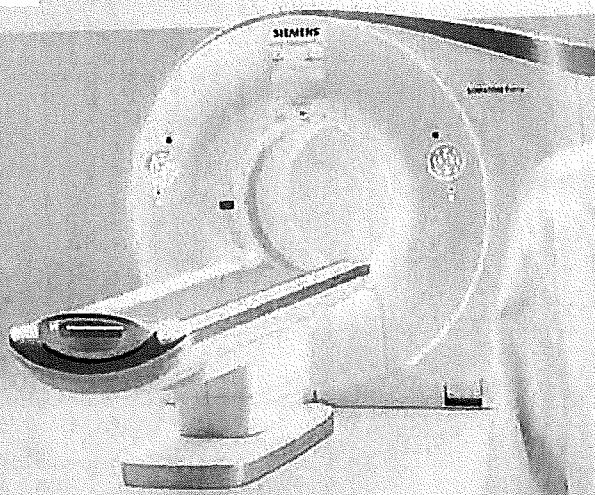
  
Lee B. Hoffman, Chief  
Certificate of Need Section

cc: Medical Facilities Planning Section, DFS



# Attachment F

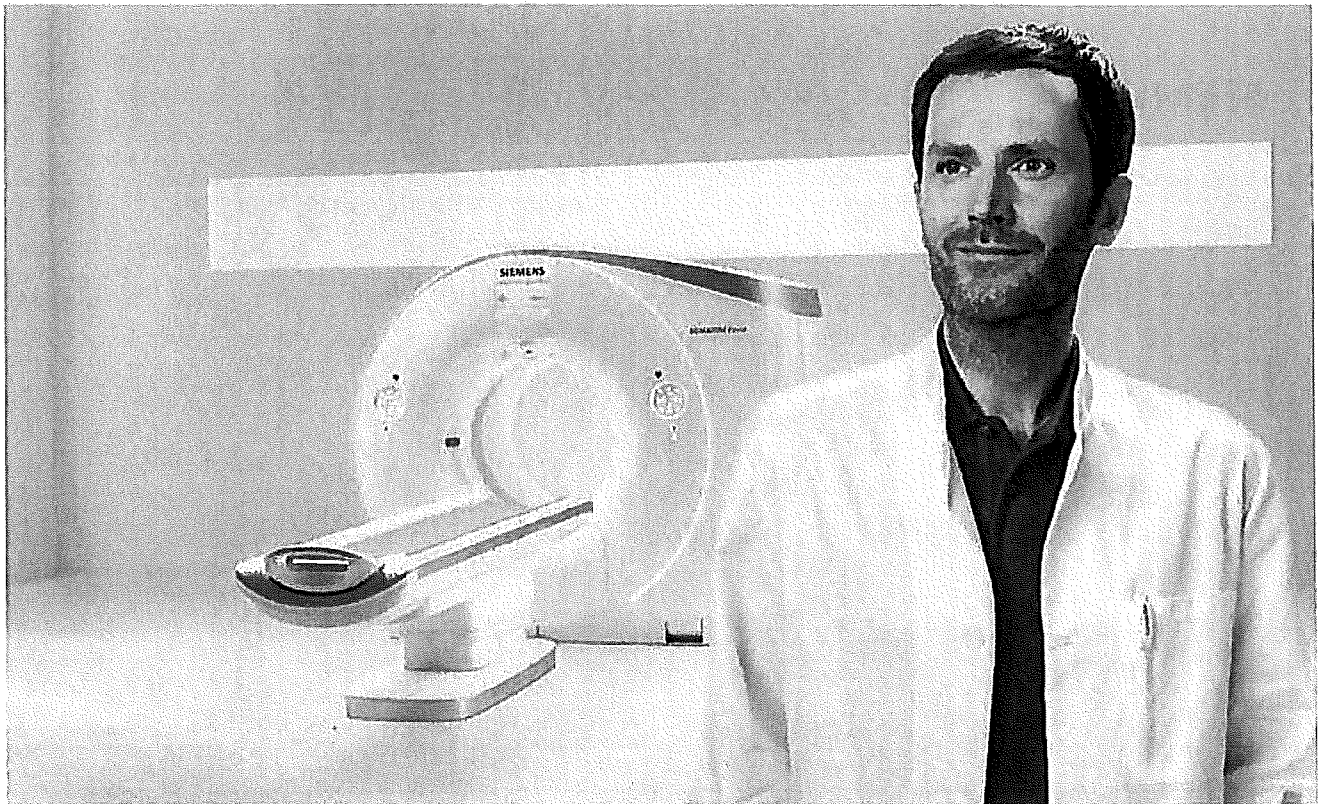
**SIEMENS**



**SOMATOM Force**

**Answers for life.**





**“Two steps ahead” VS. “Trying to keep up”**

**Second best is not an option.**

# SOMATOM Force

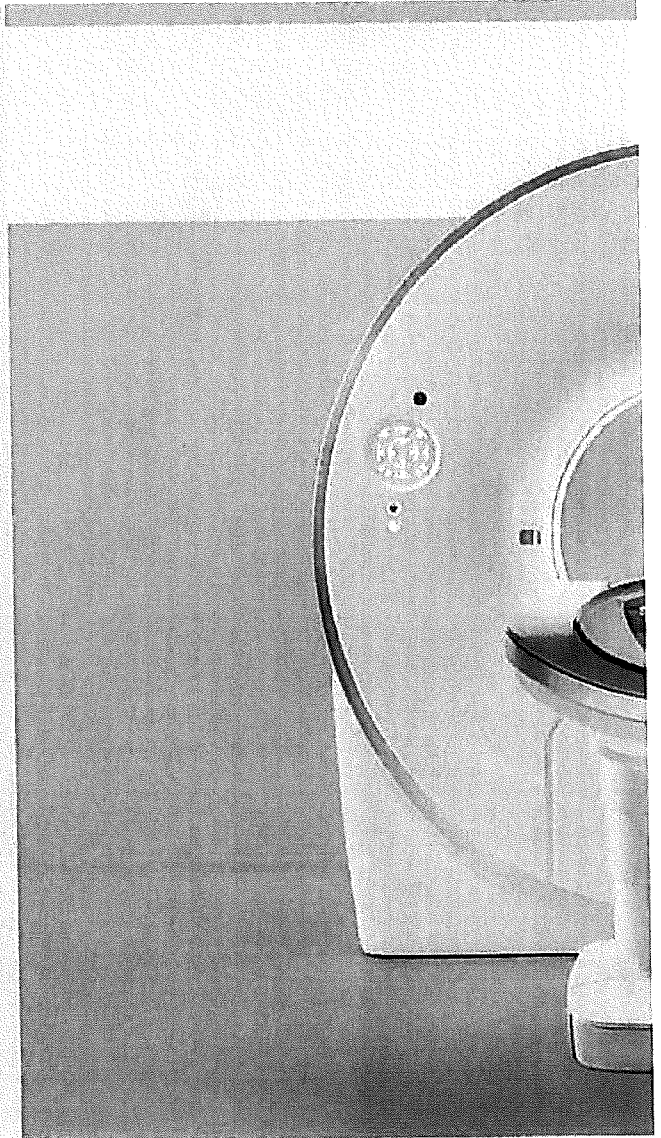
**"Two steps ahead" VS. "Trying to keep up"**  
**Second best is not an option.**

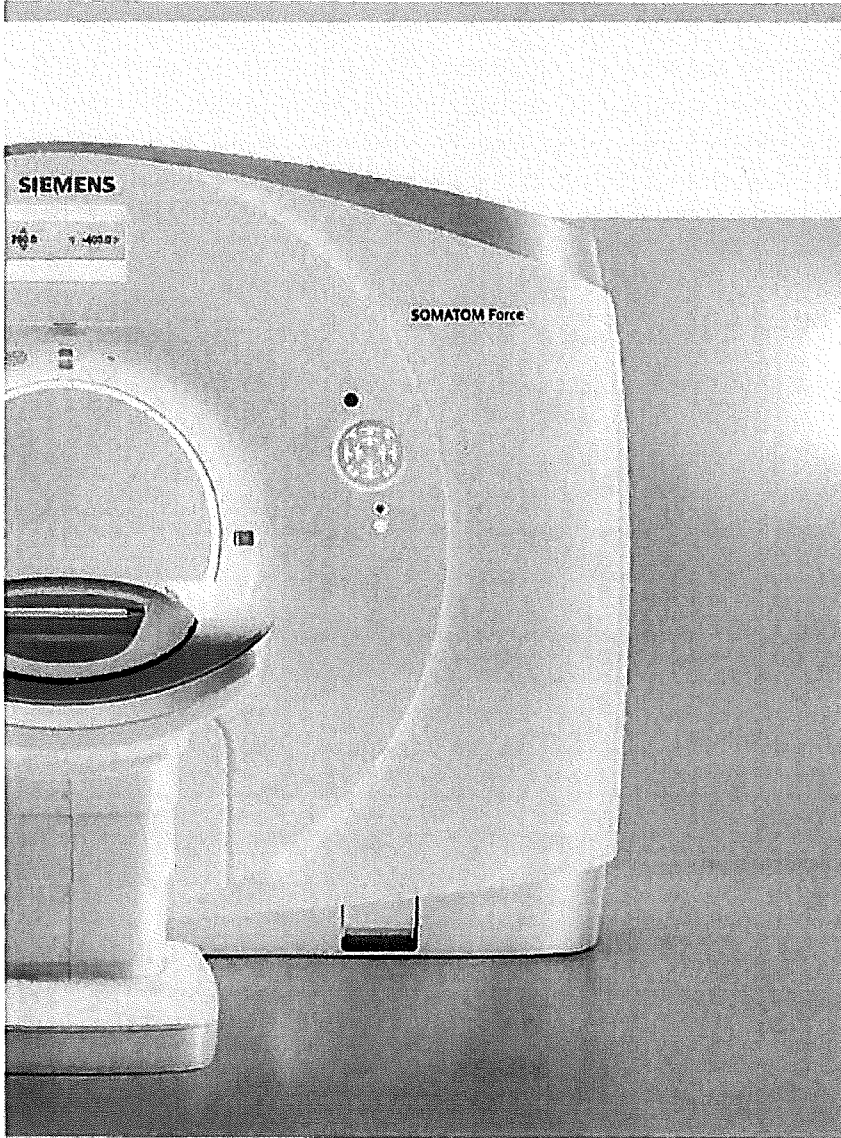
**Two steps ahead in Preventive Care**

**Two steps ahead in Freezing Motion**

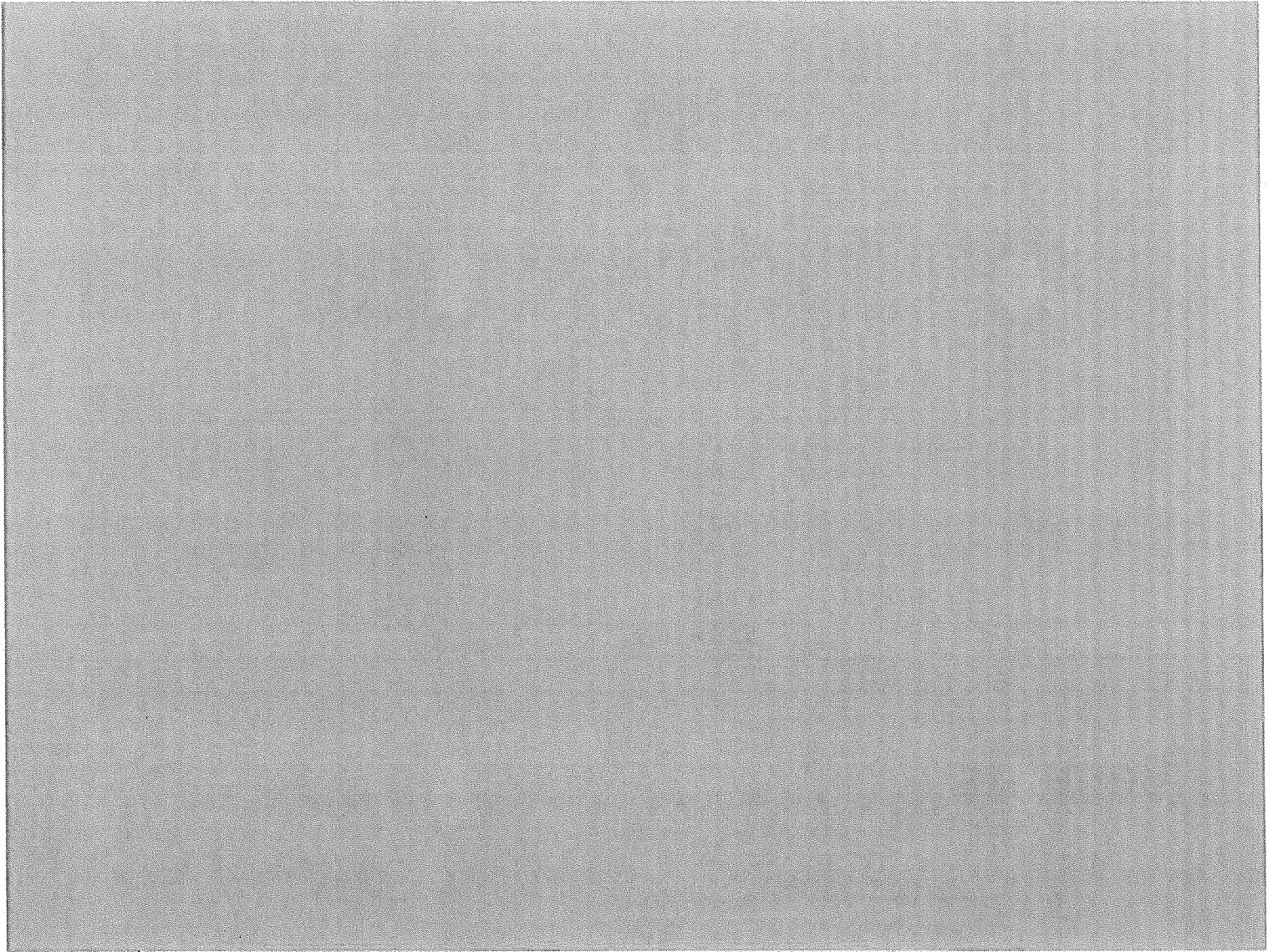
**Two steps ahead in Decision Making**

**With the new SOMATOM Force, you are two steps ahead in all clinical questions. So stop trying to keep up – get two steps ahead with the new SOMATOM Force.**



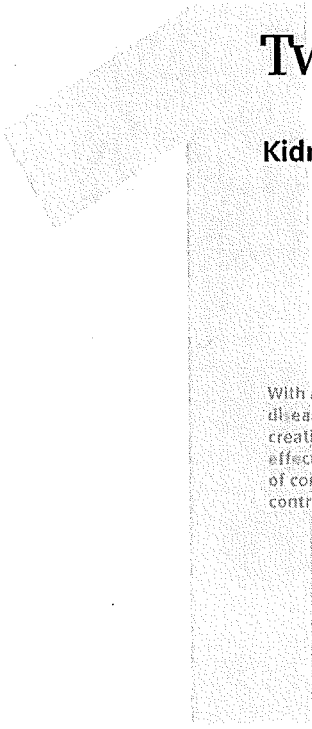


Benefits	09
Two steps ahead in Preventive Care	10
Two steps ahead in Freezing Motion	12
Two steps ahead in Decision Making	14
Added benefits of <i>syngo.via</i>	16
Clinical Images	19
Core Technologies	29
Dual Source CT	30
Vectron tube	32
Stellar <sup>Infinity</sup> detector	34
Specifications	36





## Benefits



# Two steps ahead in Preventive Care

## Kidney-friendly scanning

With an aging population, chronic kidney diseases are on the rise worldwide, creating a need for better care and more effective treatments. Reducing the doses of contrast media means reducing contrast induced renal toxicity

### Lower kV, more protection

Up to 20% of patients presented to the radiology department suffer from renal insufficiency. In some cases, the time between a contrast media (CM) enhanced scan and the next CM application can be up to two weeks, with patients waiting for renal function to be restored in the meantime. Customers have used the SOMATOM Force to routinely perform exams at 70–90 kV, even in adults, potentially reducing the amount of CM needed. Early clinical experience based on imaging of the left ventricle and aortic root (TAVR studies) demonstrate that a reduction of contrast media administration may be possible using SOMATOM Force's Turbo Flash Mode and its

low kV / High mA capabilities. Consequently, residual renal function may be maintained and the kidneys are better protected against nephrotoxic effects. Patients may receive their subsequent minimally invasive therapy faster, optimizing the entire clinical procedure.

### Less risk, more savings

Reducing CM can potentially mean a significant improvement in clinical results, as well as considerable savings for hospitals. Thus, being two steps ahead in kidney-friendly scanning may mean better outcomes for institutions and patients.

## Low dose early detection



With conventional CT, doses can be too high, and results too vague for successful early detection. The SOMATOM Force provides substantially optimized dose efficiency and higher spatial resolution.

**Lower dose, earlier diagnoses**  
The potential benefits of early detection have been discussed among medical professionals for years. In the case of lung cancer – the leading cause of cancer deaths – the National Lung Cancer Screening Trial (NLST\*\*\*) has shown that a 20% reduction in mortality from lung cancer is possible when screening exams are performed with low dose CT instead of chest X-rays\*. The SOMATOM Force allows for a previously unleveraged dose reduction through the use of two Selective Photon Shields with the Turbo Flash mode in chest imaging. This, together with outstanding spatial resolution, can help improve the use of CT imaging for the visualization of occult lesions, e.g. in the lung.

**Higher contrast, fewer readmissions**  
Alongside a minimized dose, maximum image quality is required for the early and reliable detection of the first signs of cancer. The SOMATOM Force delivers unprecedented soft-tissue contrast and unmatched speed. In Turbo Flash mode, minimized motion impairment and unparalleled image quality assist in reducing the risk of missing lesions. By significantly reducing radiation levels, the SOMATOM Force takes Computed Tomography a fundamental step ahead in preventive care.

\*Siemens CT product family is indicated for low-dose lung imaging and is not cleared for lung cancer screening.

\*\*National Lung Screening Trial Research Team, et al (2011). Reduced lung-cancer mortality with low-dose computed tomographic screening. *N Engl J Med*, 365:395-409.



# Two steps ahead in Freezing Motion

## Free-breathing CT imaging

Motion blur and unwanted artifacts can obscure diagnostic image quality. With the SOMATOM Force, image quality can be significantly improved, helping prevent expensive readmissions and uncertain diagnosis.

### More patients, less motion

For decades now, breathing commands have been a part of CT exams, and for a simple reason: avoiding as much movement as possible reduces motion artifacts, thus enhancing image quality. Unfortunately, a significant number of patients simply cannot hold their breath, even for a few seconds. Obese or elderly patients, unconscious or uncooperative cases, and small children are either excluded completely, have to be sedated, or are scanned with results unusable for diagnosis. Providing the industry's highest native temporal resolution, the SOMATOM Force helps to minimize motion artifacts even in these challenging cases.

### Better preparation, reduced complications

The clinical benefits of scanning with a temporal resolution high enough for patients to breathe freely are obvious. But there are also significant benefits from an operational and financial perspective.



## Fastest, most versatile scanning



With less staff and more complex challenges in CT imaging, a dose efficient, versatile, high performance standard scan mode may mean higher benefits for more patients and less operational problems.

*Simply unique, now universal*  
The introduction of the Flash Spiral in 2008 brought a new way of scanning, in many cases replacing conventional sequential and spiral exams. Using ultra-high-pitch imaging, it provided the industry's fastest acquisition speed, covering an entire thorax range in less than a second, an entire heart in one quarter of a second, thus practically freezing motion. The SOMATOM Force now expands these capabilities with Turbo Flash mode – increasing scan speed to an unmatched 737 mm/s, or providing a field of view (FoV) of up to 50 cm at Flash speed coverage, thus bringing the benefits of Flash scanning to obese and acute care patients.

*Easy to use, higher performance*  
This unmatched acquisition speed is a giant step ahead in freezing motion; making ultra-high-pitch scanning with the Turbo Flash mode widely available is the next step. Applying this unique scan mode in close to challenging clinical fields can substantially reduce the number of protocols and the associated preparation time. Its versatility makes Turbo Flash scanning the mode of choice for regular operation, or in emergency settings. Providing the industry's fastest, most versatile scan mode, the SOMATOM Force takes Computed Tomography a big step ahead in freezing motion.



# Two steps ahead in Decision Making

## 4D imaging at half the dose

With diagnosis often stuck in a compromise between dosage and data, the possibility of delivering high quality yet dose efficient imaging could help in make decisions faster and more sustainable

Proper diagnoses, precise decisions

Utilizing the benefits of functional imaging in addition to morphology has been a goal since the early days of CT. For some clinical scenarios, 4D imaging has found its way into clinical routine. However, despite the clear benefits of dynamic evaluations, the applied dose has been the crucial barrier to broadening 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 dynamic CTAs), but particularly by reducing the applied dose. Perfusion studies of the liver, for example, now become possible at a dose comparable to conventional multiphase examinations.

Accurate results, appropriate therapies

Besides high doses, multiphase exams come with other drawbacks. Difficult contrast bolus timing and execution foster the risk of unreliable diagnosis. By replacing this with easier-to-perform 4D studies, the SOMATOM Force helps prevent such occurrences. In addition to being more cost-effective, the functional information allows more precise disease stratification, enabling more appropriate decisions. As a result, more – and especially younger – patients can benefit from a more precise assessment of lesions and associated therapies.

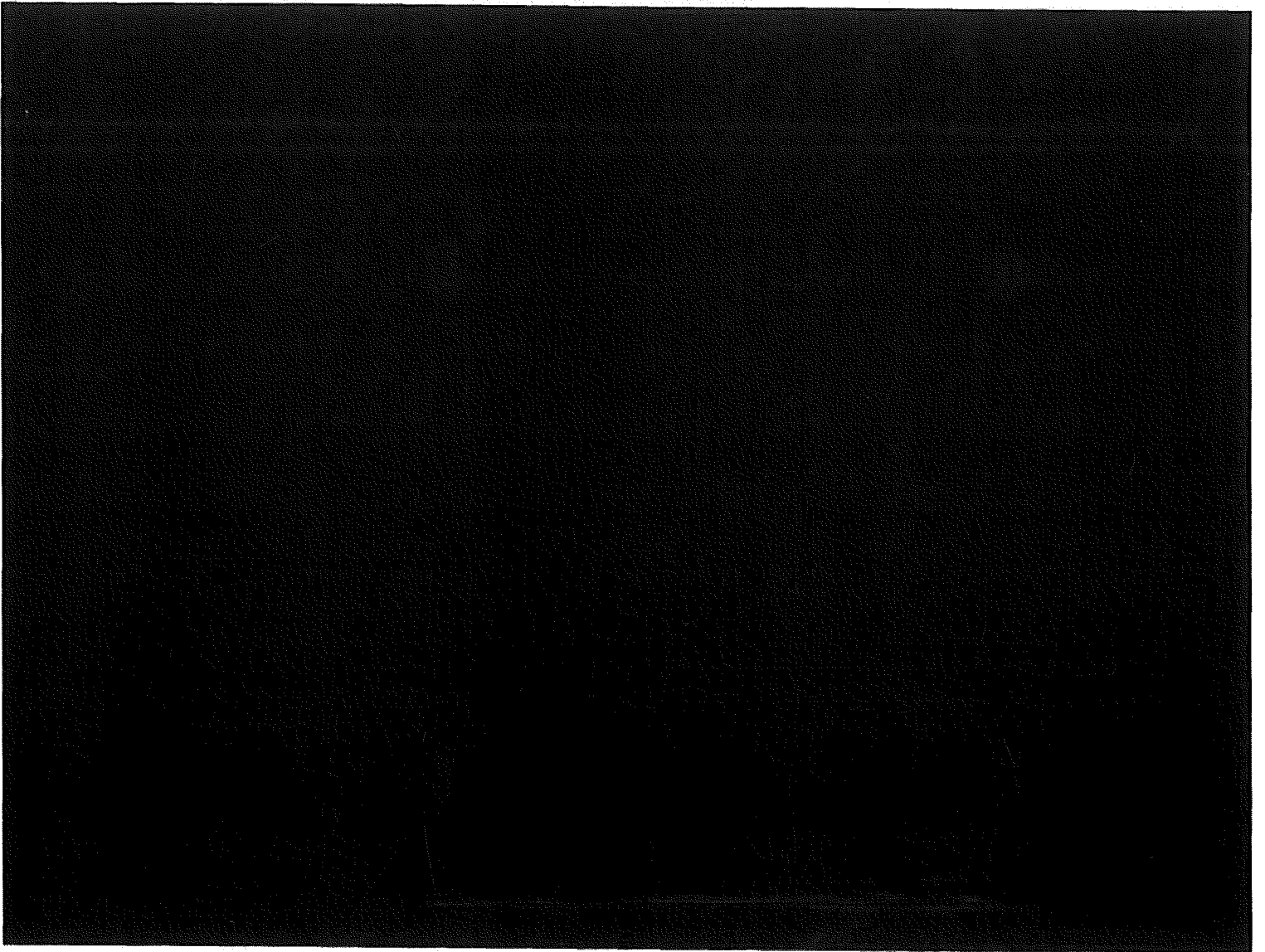
## Precise Dual Energy quantification

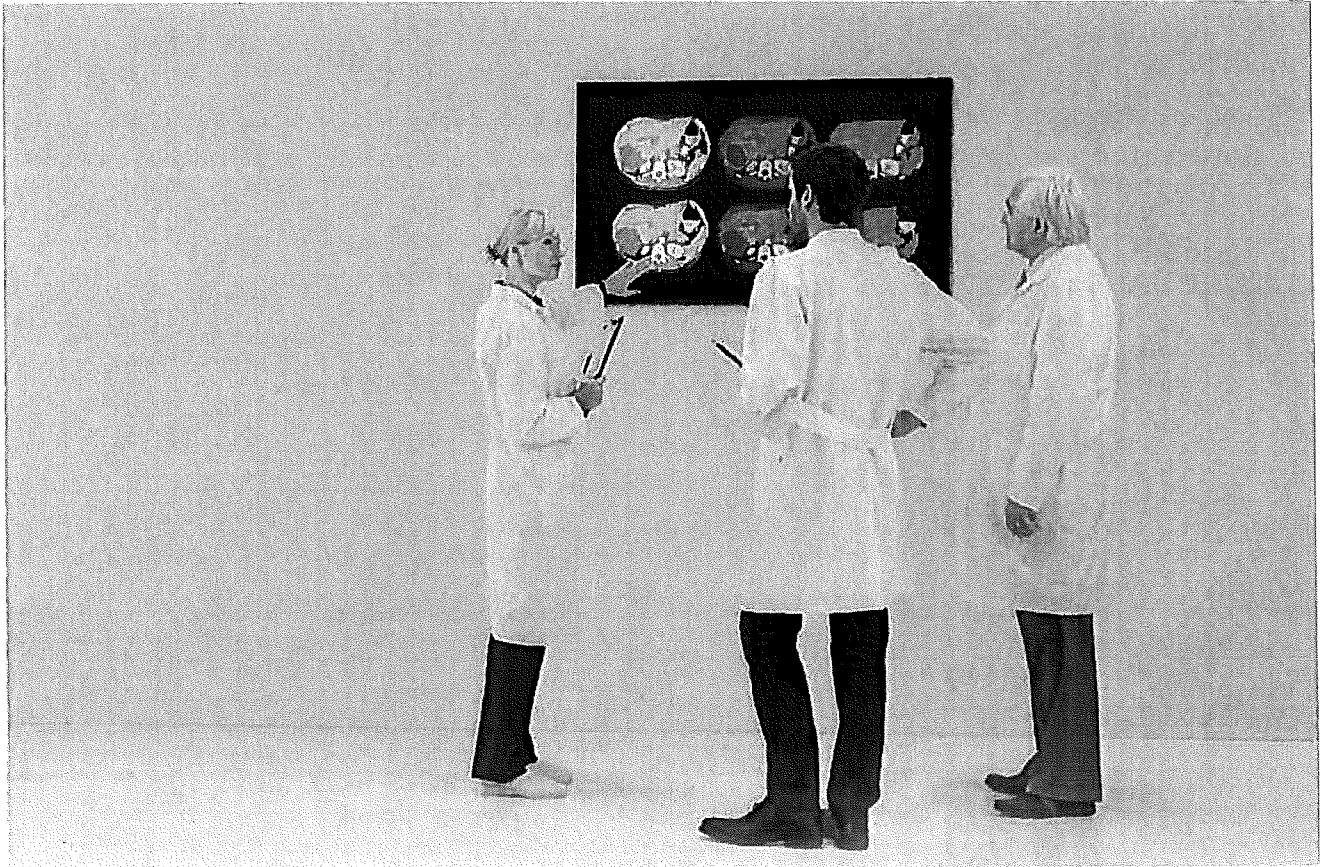


With patient specific therapies growing more complex and expensive, reliable results for early and accurate decisions mean maximum efficiency in therapy monitoring

More information, better outcomes  
CT researchers have been looking to add tissue and material information to morphology through the use of Dual Energy (DE) examination for decades. With the introduction of Dual Source CT – the industry's only dose-neutral DE solution – Siemens has taken an essential step in bringing DE into clinical practice. The SOMATOM Force significantly increases visualization, bringing Dual Source DE to a new level. Improved DE acquisition speeds of up to 250 mm/s, and a much broader range of applications, e.g. for obese patients, allow for more precise material differentiation in oncology, cardiovascular and acute care cases.

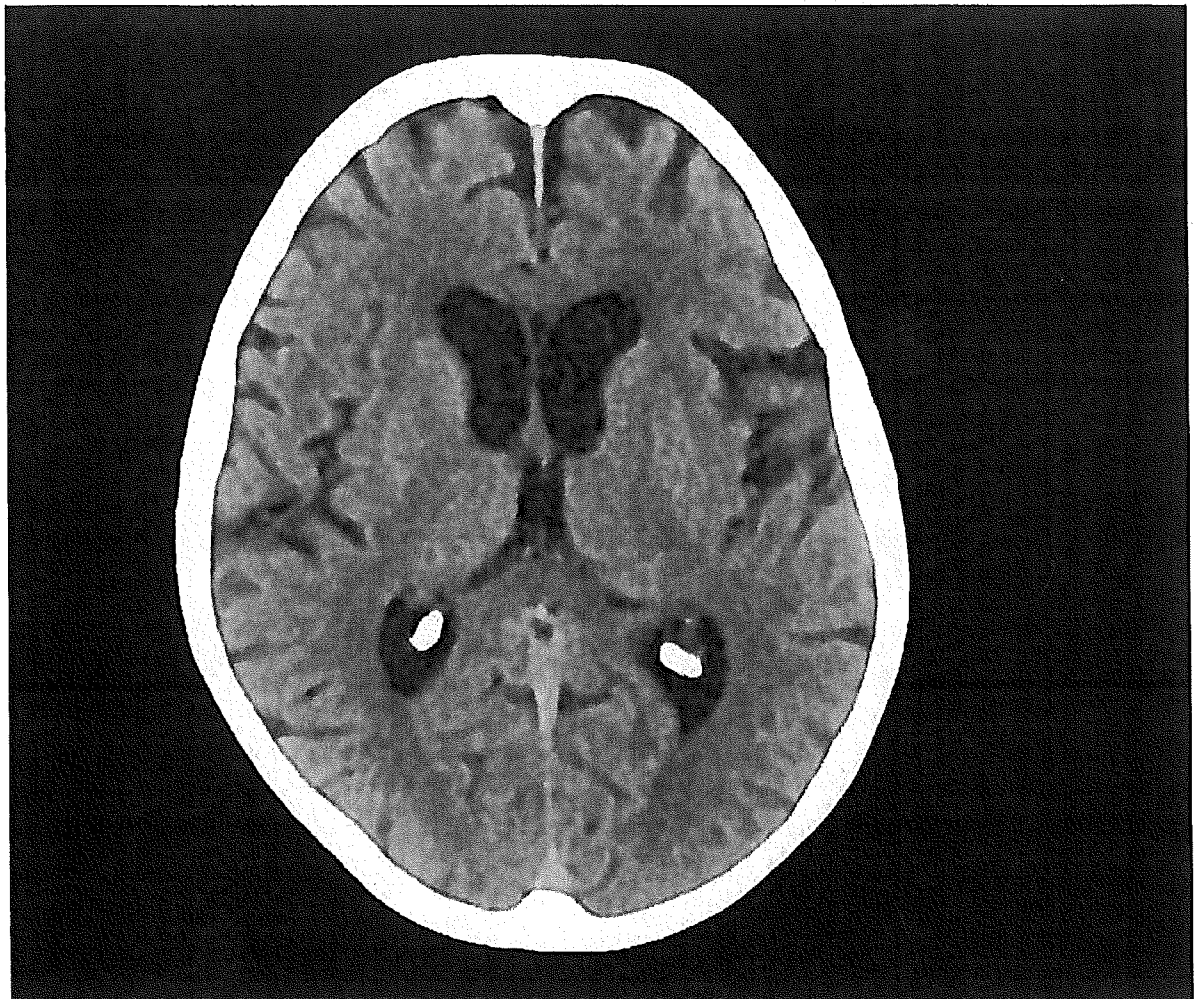
Saved time, increased usage  
Integrating DE into clinical routine delivers more than merely improved clinical results. Evaluation of treatment response is often based on trial and error, but waiting to see whether a chosen therapy is appropriate can be complex, costly and time-consuming. As a result, many institutions waste resources on unnecessary treatments. Reliable information about tissue and material decomposition allows for faster assessments, and thus faster decision making regarding the appropriateness of a chosen therapy. By making DE quantification more precise and more accessible, the SOMATOM Force takes CT a giant step ahead in decision making.





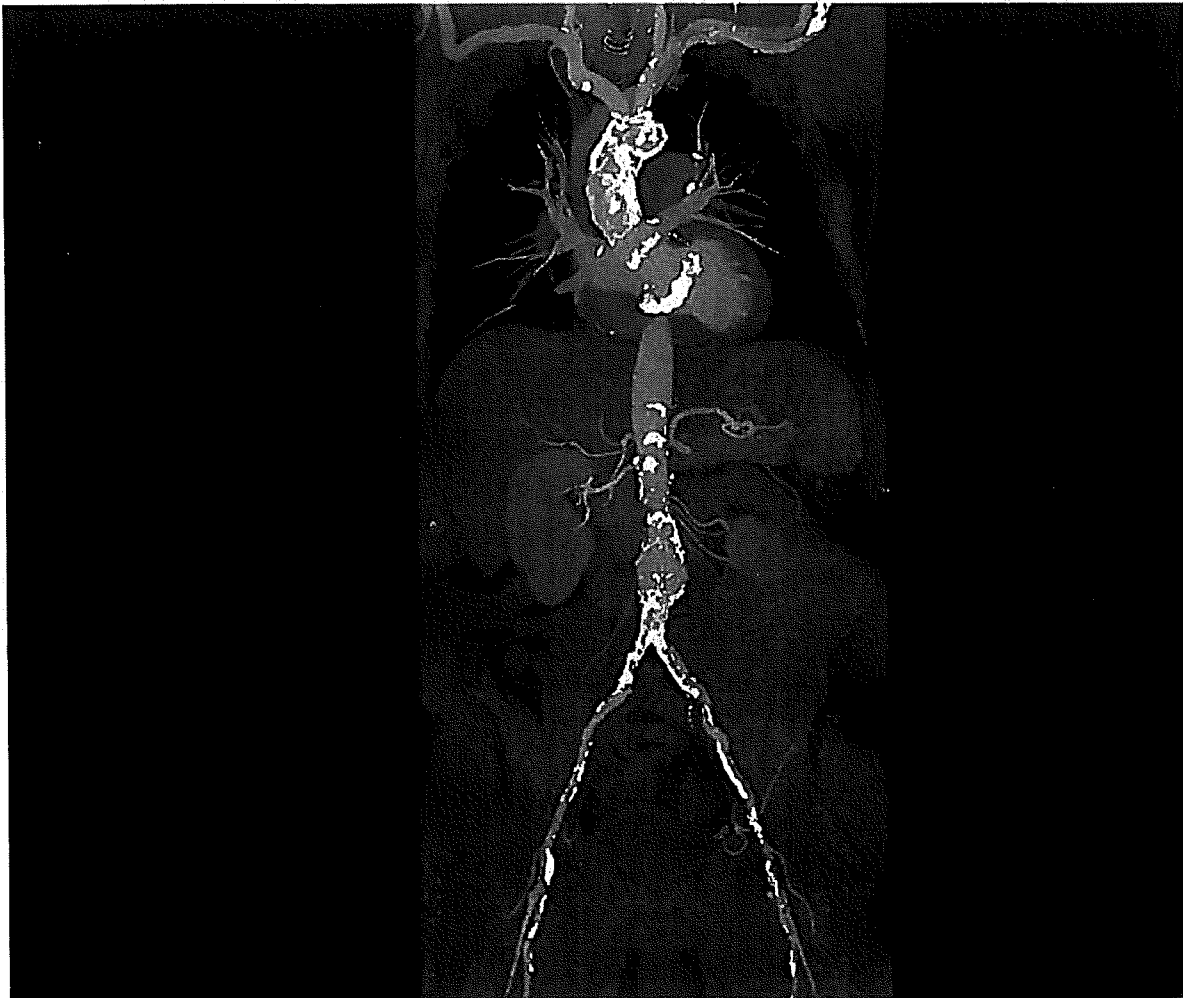
# Clinical Images

collimation:  
64 x 0.6 mm  
spatial resolution:  
0.3 mm  
scan time:  
12 s  
scan length:  
126 mm  
rotation time:  
1.0 s  
tube settings:  
120 kV, 60 mAs  
DLP:  
701 mGy cm  
CTDIvol:  
45.09 mGy  
eff. dose:  
1.5 mSv



The SOMATOM Force with its Stella<sup>multislice</sup> detector and the unique Vectron tube significantly increase low contrast detectability and grey-white matter differentiation.

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



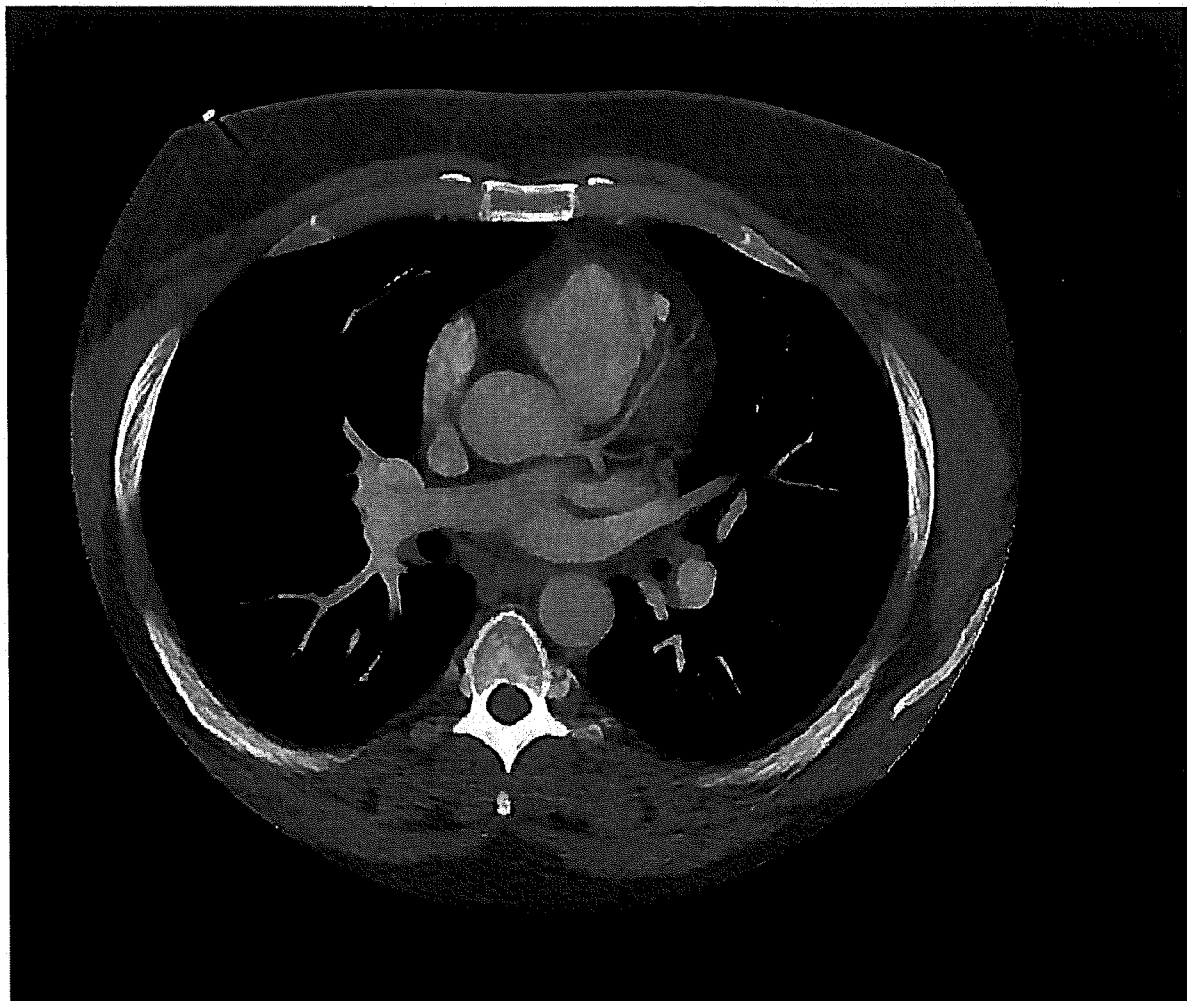
collimation:  
2 x 192 x 0.6 mm  
spatial resolution:  
0.3 mm  
scan time:  
1.44 s  
scan length:  
727 mm  
rotation time:  
0.25 s  
tube settings:  
90 kV, 194 mAs  
DLP:  
334 mGy cm  
CTDIvol:  
4.4 mGy  
eff. dose:  
5.0 mSv  
contrast media:  
40 ml

With the new Vectron tube, TAVR planning in a heavy patient with chronic kidney disease can be performed at 90 kV. The increased contrast-to-noise ratio allows contrast media to be reduced to 40 ml\*.

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

\*Early clinical experience based on imaging of the left ventricle and aortic root (TAVR studies) demonstrate that a reduction of contrast media administration may be possible using SOMATOM Force's Turbo Flash Mode and its low kV / High mA capabilities

collimation:  
2 x 192 x 0.6 mm  
spatial resolution:  
0.3 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  
contrast media:  
40 mL  
HR independent  
temp resolution:  
66 ms



A 308lb patient was scanned with Cardiac Turbo Flash mode at 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-dependent field of view, ranging from 35 to 50 cm, and is suitable for patients of up to 485lb.

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



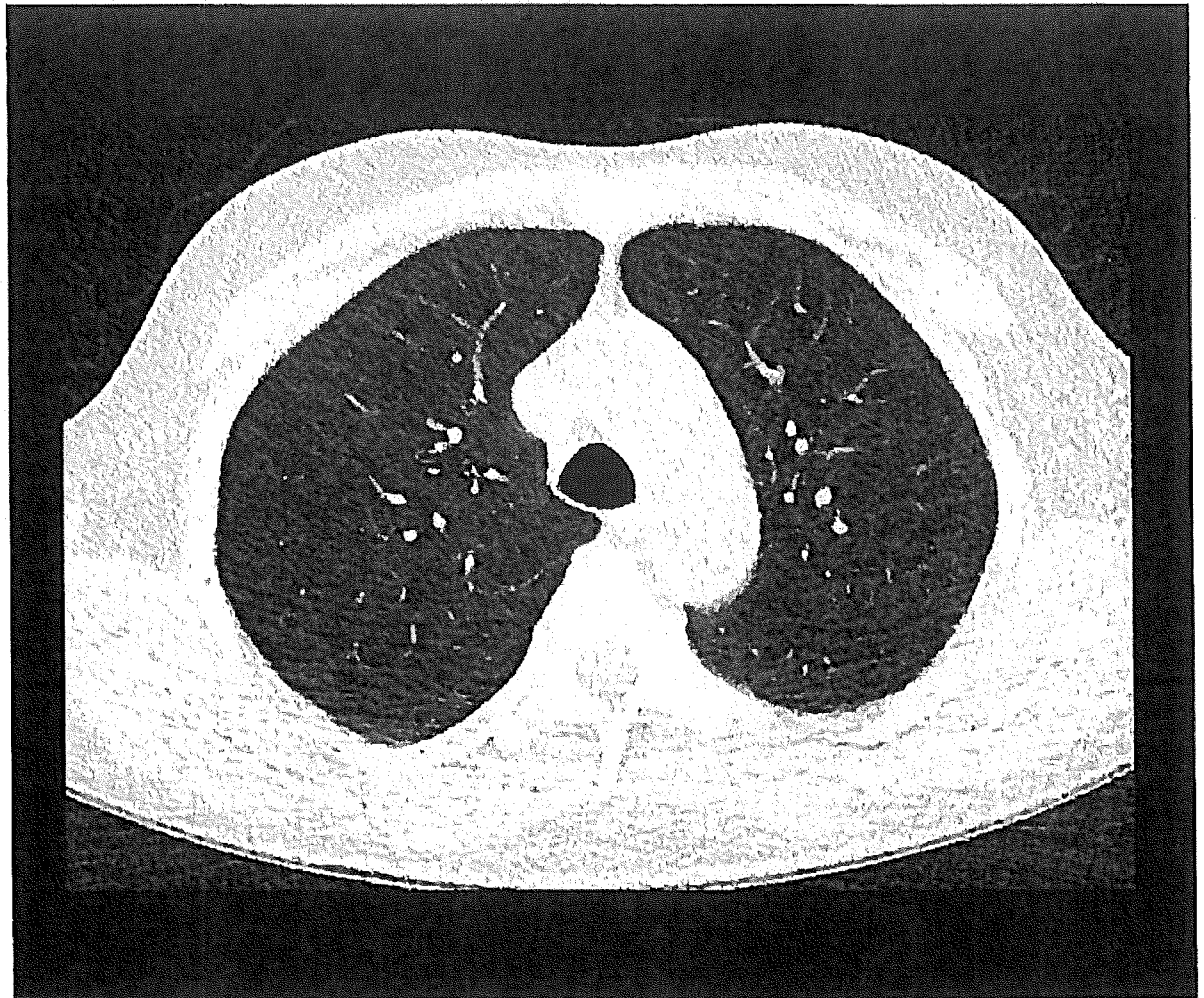


collimation:  
192 x 0.6 mm  
spatial resolution:  
0.3 mm  
scan time:  
47 s  
scan length:  
433 mm  
rotation time:  
0.25 s  
tube settings:  
70 kV, 80 mAs  
DLP:  
1,404 mGy cm  
CTDIvol:  
23.57 mGy  
eff. dose:  
1.1 mSv

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 20 ml of contrast media.

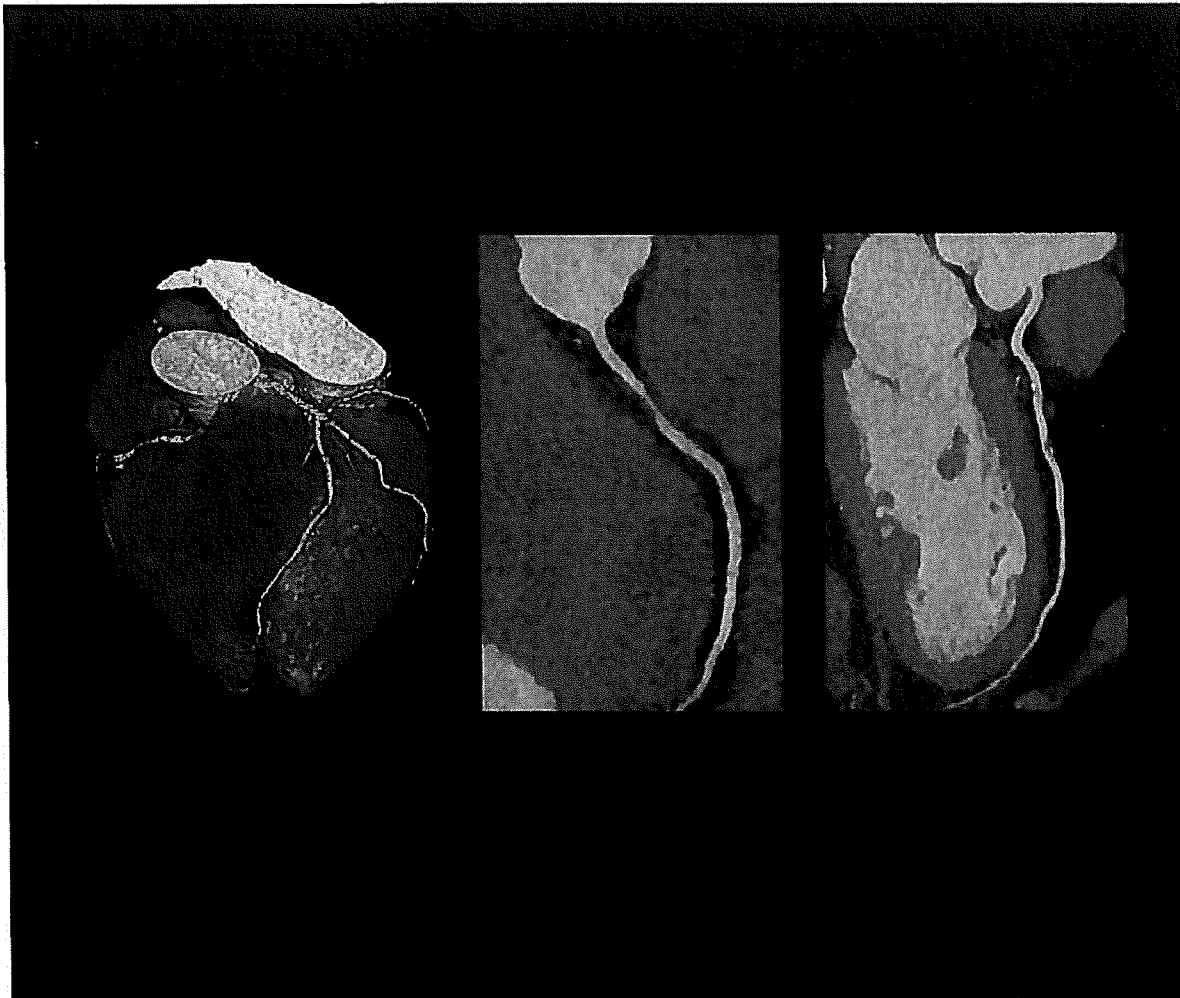
Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany

collimation:  
2 x 192 x 0.6 mm  
spatial resolution:  
0.3 mm  
scan time:  
0.4 s  
scan length:  
300 mm  
rotation time:  
0.25 s  
tube settings:  
100 kV Sn, 33 ref. mAs  
DLP:  
4.5 mGy cm  
CTDIvol:  
0.15 mGy  
eff. dose:  
0.06 mSv  
contrast media:  
30 ml



The spectral shaping of the two Selective Photon Shield II enables free-breathing Turbo Flash scanning at 100 kV with much higher air-to-soft-tissue contrast, especially in the lung or colon.

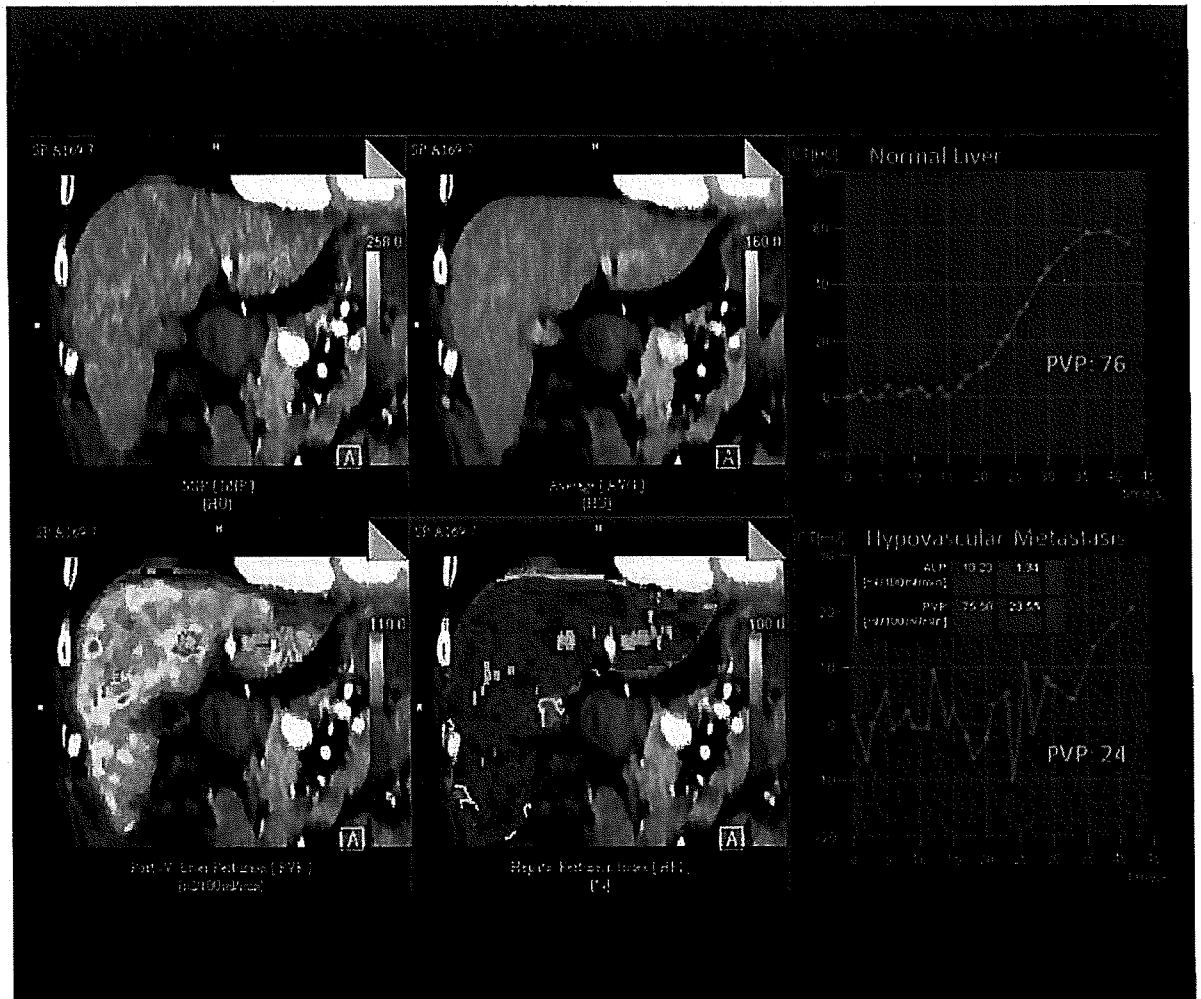
Courtesy of Medical Faculty Universitaets-Spital Zuerich, Zurich, Switzerland



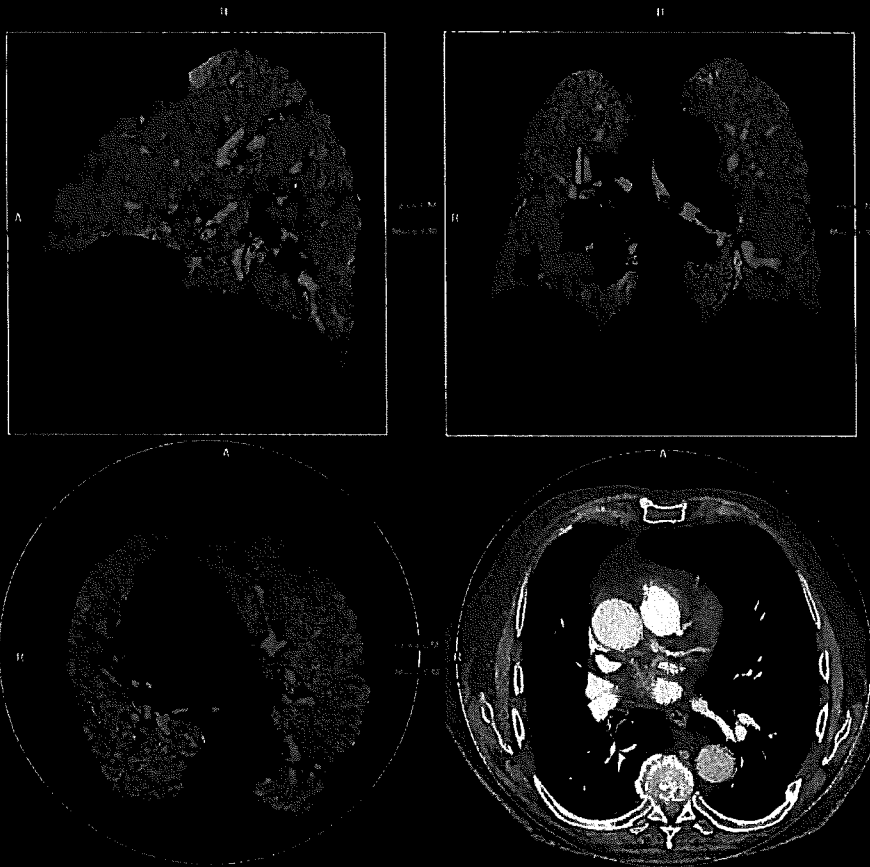
collimation:  
2 x 192 x 0.6 mm  
spatial resolution:  
0.3 mm  
scan time:  
0.2 s  
scan length:  
140 mm  
rotation time:  
0.25 s  
tube settings:  
80 kV, 543 mAs  
DLP:  
45 mGy cm  
CTDIvol:  
2.49 mGy  
eff. dose:  
0.6 mSv  
HR independent  
temp. resolution:  
66 ms

Low-kV Turbo Flash coronary CTA was used for the evaluation of coronary heart disease in an adult patient. The true lumen of the calcified plaque in the LAD can be precisely seen at up to 22 lp/cm thanks to the new data measurement system and x-ray tube.

collimation:  
 192 x 0.6 mm  
 spatial resolution:  
 0.3 mm  
 scan time:  
 35 s  
 scan length:  
 220 mm  
 rotation time:  
 0.25 s  
 tube settings:  
 80 kV, 100 mAs  
 DLP:  
 948 mGy cm  
 CTDIvol:  
 49.4 mGy  
 off. dose:  
 14 mSv  
 temporal resolution:  
 up to 1.5 s cycle time

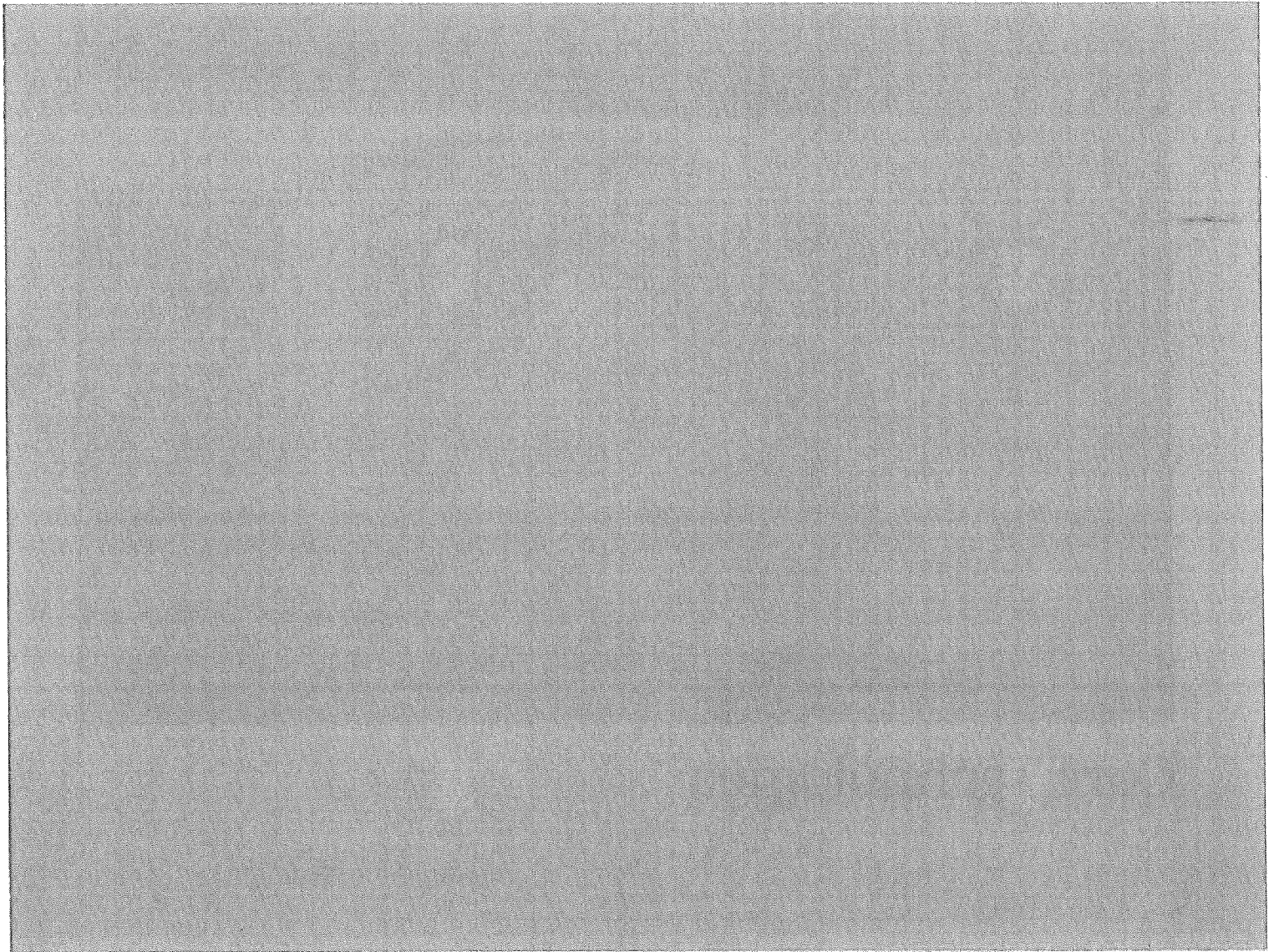


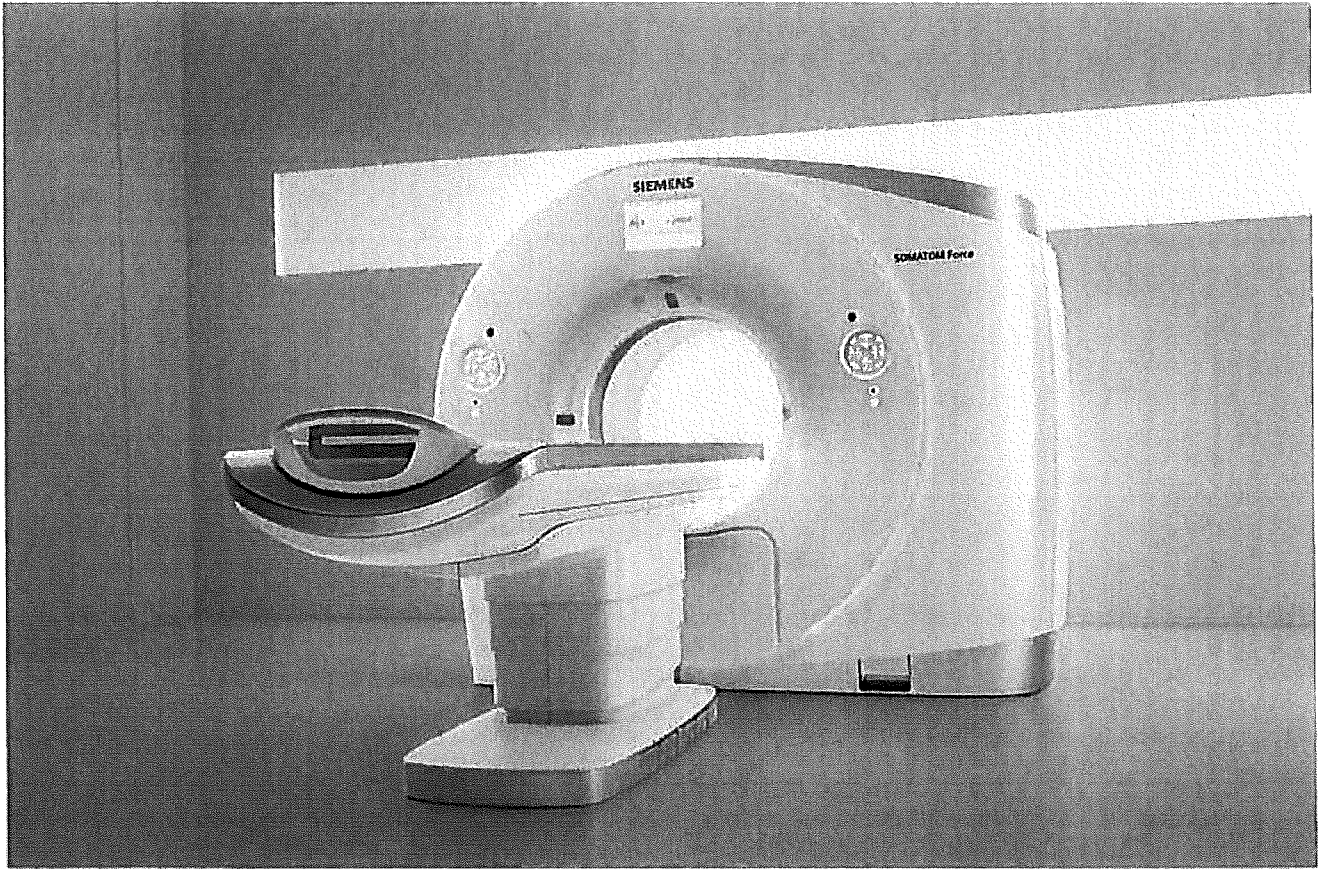
Courtesy of Medical Faculty Mannheim at Heidelberg University, Mannheim, Germany



collimation:  
 128 x 0.6 mm  
 spatial resolution:  
 0.3 mm  
 scan time:  
 4 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

The new 90/150 kV Sn mode and a 35 cm field of view allow for DE examinations (male, 48 years, 220lb). The new Selective Photon Shield II increases energy separation by 30%. This combination expands DE information to challenging patients for more precise tissue and material decomposition.





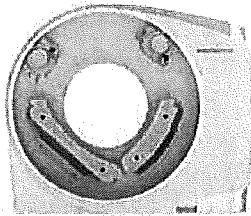
**Core Technologies**

# SOMATOM Force – Core Technologies

Dual Source imaging at ultra-high speed with the unique SOMATOM Force gantry

The SOMATOM Force is the next generation of Dual Source CT, featuring four state-of-the-art Virtual Slit™ detectors.

The unique Dual Source gantry and high-pitch table of the SOMATOM Force allow CT imaging at unprecedented rotational speed and temporal resolution.



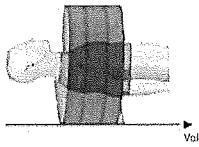
## Continuing a strong heritage

In 2005, Siemens took a giant leap with the introduction of Dual Source CT. The introduction of the SOMATOM Definition allowed, for the first time, heart scanning at any heart rate – it also introduced DE into clinical routine. In 2008, Siemens defied limitations by introducing the SOMATOM Definition Flash. With the Flash Spiral, routine sub-mSv cardiac imaging became possible, defining the new benchmark in low dose CT imaging. Researchers and scientists worldwide have since proven the clinical benefits of Dual Source in several hundred publications and with more than 1,500 installations. Dual Source has found its way into everyday clinical practice.

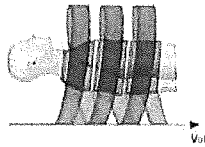
## Next-generation Dual Source CT gantry

The limits of CT are once again being expanded with the next generation of Dual Source CT: the SOMATOM Force. Its unmatched rotation speed of 0.25 s, in combination with a 50% increase in detector coverage and ultra-high-pitch scanning facilitates an unseen temporal resolution of 66 ms and an acquisition speed of up to 737 mm/s. For the first time, Flash CT scans can be performed with a full field of view (FoV) of 50 cm, starting at a scan speed of close to 40 cm/s. This unique scan mode – the Turbo Flash Spiral – brings the benefits of Flash scanning to a broader range of patients than ever before, making it the fastest, most versatile scan mode in the industry.

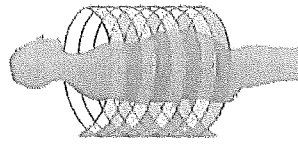




Single Source CT scanners are limited to slow pitch, slow scan speed and overlapping scans



Gaps in the acquired volume occur at higher table feeds in Single Source CT



Dual Source CT combines the data from two sources at a table pitch of up to 3.2 without sequential or spiral scanning overlap

The combination of ultra high-pitch scanning and Dual Source technology is the key enabler for the Turbo Flash goal with up to 737 mm/s acquisition speed

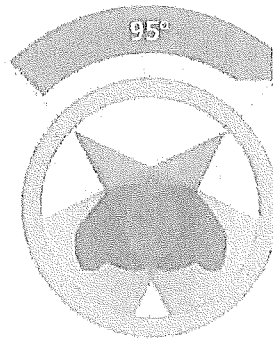
## 66 ms temporal resolution and 737 mm/s acquisition speed

### 66 ms temporal resolution

The SOMATOM Force's fastest rotation speed is 4 rotations per second or 0.25 seconds per rotation, which equals a temporal resolution of 66 ms in cardiac imaging, independent of the heart rate. The extended coverage of the SOMATOM Force can cover an entire heart in approximately 150 ms – faster than a heartbeat. Additionally, high temporal resolution is provided in the entire image. As the data is natively measured, no artificial enhancement of the temporal resolution is needed. Together with a generator power of up to 2 x 120 kW, the SOMATOM Force facilitates freezing motion at outstanding image quality.

### 737 mm per second acquisition speed

With its ultra high pitch, the Turbo Flash spiral mode can provide a volume coverage speed of up to 737 mm/s. A thorax-abdomen scan can now be performed in just one second. This is a result of the new design of the Stellar<sup>inFinity</sup> detector with 50% more coverage and a rotation speed of 0.25 s. The capabilities of the gantry and the table are not the only important factors – when scanning at ultra-high pitch, the available power is essential. In obese imaging and fast volume coverage, maximum power is required to deliver sufficient photon flux for each slice. With 2 x 120 kW generator power, the SOMATOM Force is the ideal scanner for high-speed, large-volume coverage.

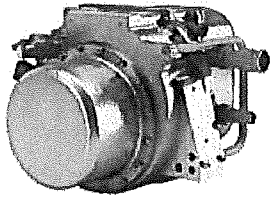


The Dual Source gantry of the SOMATOM Force allows reduction of temporal resolution to 66 ms, and only 95° gantry rotation is needed to acquire the data for an entire cardiac cycle.

# SOMATOM Force – Core Technologies

## Dual Source imaging with the revolutionary Vectron tube

The revolutionary Vectron tube from Siemens delivers more and more reserves with up to 1,300 mA especially for low kV imaging at 70 kV to 90 kV.



### More than enough power

The SOMATOM Force delivers up to 2 x 1,300 mA, utilizing power reserves from two 120 kW generators, and direct anode cooling from the Vectron X-ray tube. This revolutionary concept was introduced with the STRATON tube. The Vectron tube offers tube voltages from 70–150 kV in increments of 10 kV, automatically selected through CARE kV, based on patient body habitus and examination type. This unique combination allows for more patients to be scanned at low kV from 70 to 90 kV. The higher power reserves now utilize the improved Selective Photon Shield II (SPS II) for both Vectron tubes.

### Making the best even better

The SPS II facilitates filtration of X-ray spectra at considerably higher levels than its predecessor. In addition, the flying focal spot approach of z-Sharp was entirely reworked. The electron beam is now even more accurately and rapidly deflected in a diagonal fashion, creating two focal spots alternating at 4,480/s. Allowing two slices per detector row increases resolution along the scan axis, and enables a significantly increased in-plane resolution. In combination with the smallest focal spot of 0.4 x 0.5 mm (IEC 60336), the Vectron tube routinely delivers spatial resolution of up to 22 lp/cm (equivalent to 0.24 mm) in clinical routine without increases in dose.

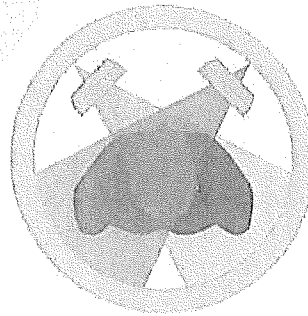
## Low kV for adults and significantly less dose

### Low kV for adults

Siemens pioneered the trend of low kV scanning with the introduction of 80 kV and then 70 kV imaging. Using X-rays at lower kV means scanning at lower energy levels, thus higher attenuation and higher iodine contrast. However, in order to maintain the desired contrast-to-noise ratio (CNR), the power had to be increased. Power limitations consequently restricted the use of these modes, e.g. to very small patients. The outstanding power reserves of the SOMATOM Force now allow maintained CNR at lower kV in adults and obese patients. This means maintaining contrast concentration while reducing radiation dose – and vice versa.

### Air-to-soft-tissue contrast at less dose

Combining the low kV capabilities of the Vectron tube with the higher X-ray filtration of the two SPS II improves the CNR of air-to-soft-tissue contrast, which is mostly found in the colon or the lung. CNR can also be maintained at reduced patient radiation doses. This increased efficiency, together with outstanding low-contrast detection through the Stellar<sup>intensity</sup> detector, makes the SOMATOM Force the ideal scanner for the early detection of occult lesions\*.



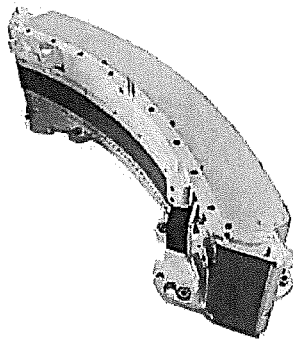
Your improved Selection Protocol Model, are the key components for the significant dose reduction potential of the SOMATOM Force.

\*The SOMATOM Force may achieve the same Contrast-to-Noise level (in terms of image pixel noise) in the image at reduced dose.

# SOMATOM Force – Core Technologies

Dual Source imaging with the exceptional Stellar<sup>Infinity</sup> detector

The new Stellar<sup>Infinity</sup> detectors with their 2 x 96 row coverage (2 x 192 slices) and the redesigned Adaptive Dose Shield finally bring body perfusion into clinical routine.



#### More with less

The benefits of perfusion, or 4D imaging, have long been established. Many institutions have introduced perfusion examinations of the brain as standard care for stroke patients. But when it comes to body perfusion, users are still reluctant to apply it in clinical practice as it is still considered a high-dose examination. With the new Stellar<sup>Infinity</sup> detectors, the SOMATOM Force enables body perfusion suitable for everyday use. The increased coverage of 2 x 96 rows (2 x 192 slices) allows for a perfusion range of up to 22 cm, thus easily covering entire organs. The key to this breakthrough is the new Adaptive Dose Shield that allows a dose reduction of up to 50% in 4D imaging, in comparison to other state-of-the-art CT's.

#### Dynamic imaging at half the dose

The Adaptive Dose Shield was improved to meet the requirements of the SOMATOM Force by facilitating faster collimator blade movement. The key innovation for this was faster data transmission through Siemens' unique SiDaNet ultra-fast data bus system. With its faster blade movement, the Adaptive Dose Shield fully completes the Adaptive 4D Spiral Plus in perfusion imaging. Utilizing the higher resolution of the Stellar<sup>Infinity</sup> detectors from 25% more detector channels and a 3D scatter grid are the key enablers for dose reductions – at outstanding high- and low-contrast resolution.

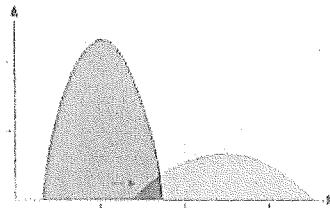
## Less dose in dynamic imaging and 30% more energy separation in DE

### Precision is key

For many years, researchers had been struggling to add tissue and material information to morphology, utilizing the information from two distinct energy levels. It took Siemens' introduction of the first-generation DE scanner in 2005 to achieve the goal of bringing DE to clinical practice. In 2008, Siemens was able to facilitate dose-neutral DE scanning, making it even more accessible. Now, with the SOMATOM Force, Siemens goes one step further. With new energy pairings and the new SPS II, the SOMATOM Force allows new levels of energy separation in DE, and therefore significantly increased precision and clinical impact.

### 30% more energy separation in DE

The quality of DE exams relies on the effective separation of energy spectra. More spectral overlap means less additional data on the material's decomposition. Therefore, the pairing of the two energy levels is important. First, they need to be widely apart. Second, they have to be perfectly set to the needs of the patient. The SOMATOM Force utilizes multiple pairings: the "standard" 80/140 kV, but also new 80, 90, and 100/150 kV modes with Sn (tin) filtration using the SPS II, e.g. for obese patients. 30% better energy separation means similar tissues can be differentiated more precisely, leading to increased diagnostic power in DE.



With the new SPS II, the SOMATOM Force achieves higher energy separation for better DE exams.

# SOMATOM Force

**“Two steps ahead” VS. “Trying to keep up”  
Second best is not an option.**

Two steps ahead in Preventive Care

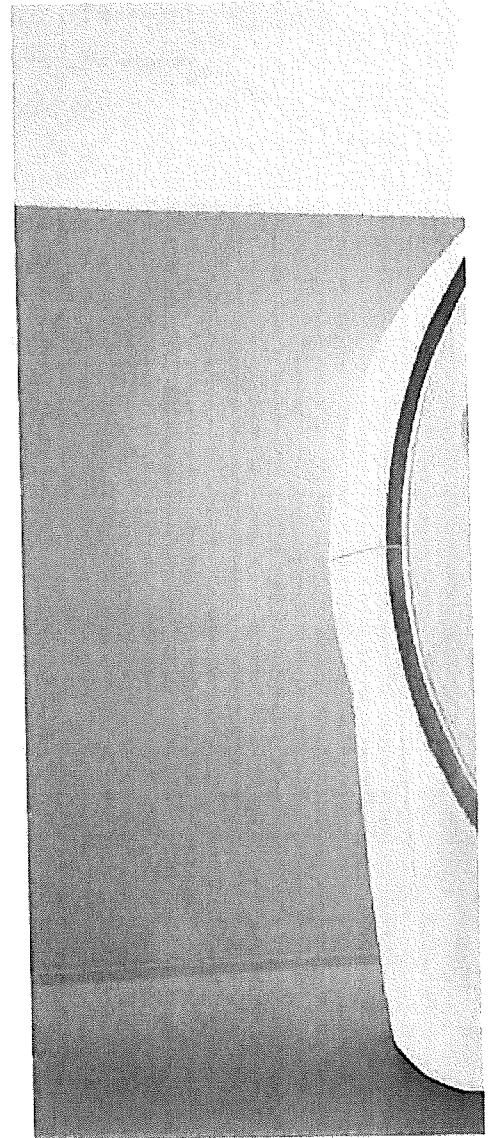
- Kidney-friendly scanning
- Low dose early detection

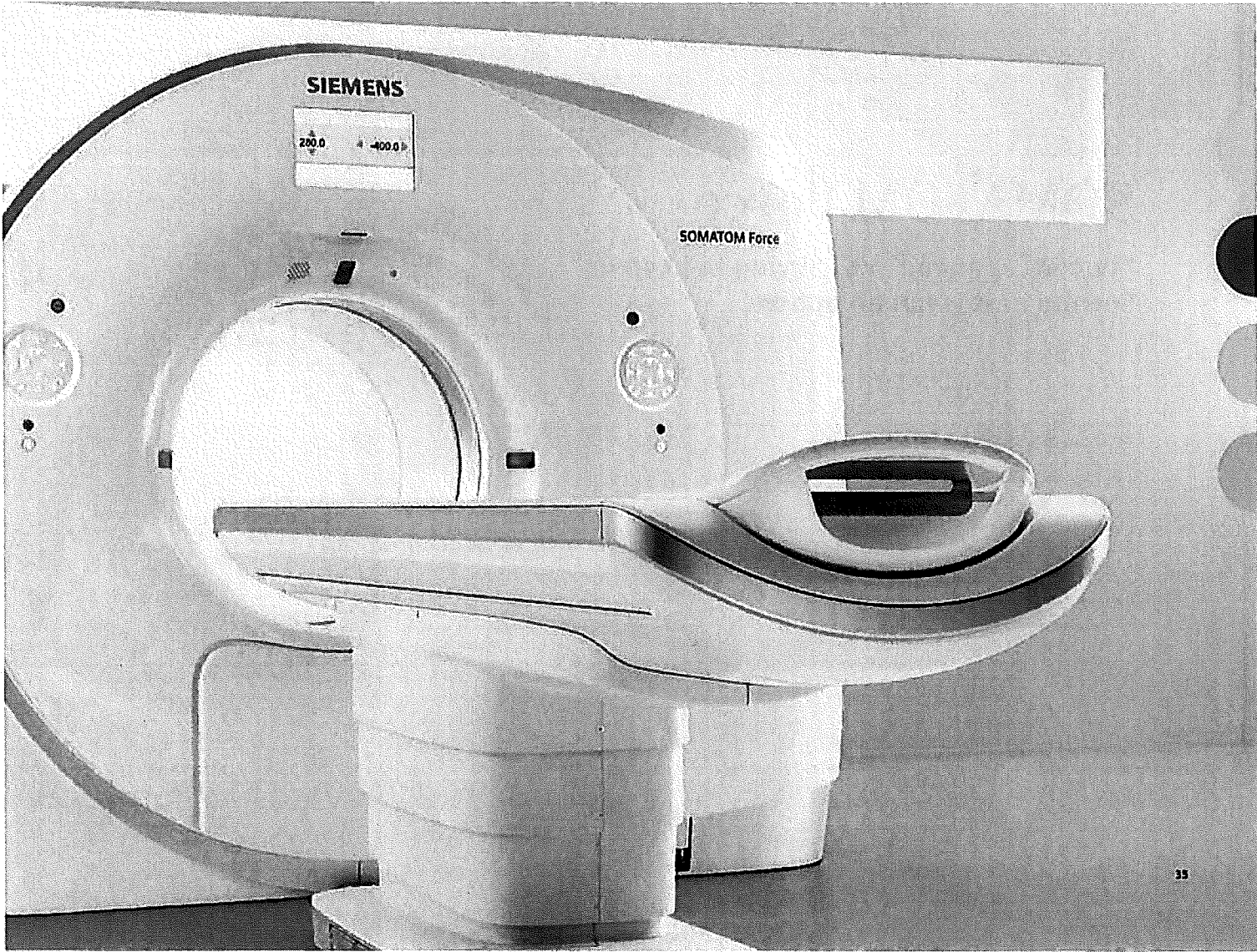
Two steps ahead in Freezing Motion

- Free-breathing CT imaging
- Fastest, most versatile scanning

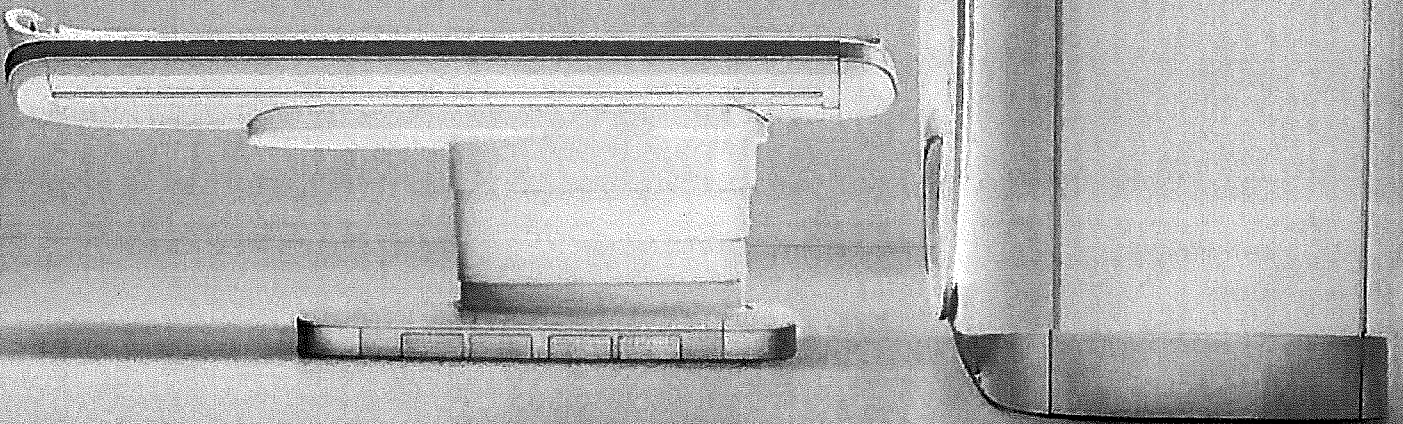
Two steps ahead in Decision Making

- 4D imaging at reduced dose
- Precise Dual Energy quantification





<b>Detector</b>	2x Stellar <sup>intensity</sup> detector with 3D scatter collimator
<b>Number of acquired slices</b>	384 (2 x 192)
<b>Rotation time</b>	up to 0.25 s
<b>Temporal resolution</b>	66 ms
<b>Generator power</b>	240 kW (2 x 120 kW)
<b>kV settings</b>	70 – 150 kV, in increments of 10
<b>Spatial resolution</b>	0.3 mm x 0.3 mm x 0.3 mm standard isotropic resolution
<b>Max. scan speed</b>	737 mm/s* with Turbo Flash
<b>Table load</b>	up to 307 kg / 676 lbs*
<b>Gantry opening</b>	78 cm



\*Optional



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The information in this document contains general technical descriptions of specifications and options as well as standard and optional features which do not always have to be present in individual cases.

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# Attachment G

**EQUIPMENT COMPARISON**

	Existing Equipment	Replacement Equipment
Type of Equipment (List each component)	VCT 64 Slice Light Speed	SOMATOM Force Dual Source
Manufacturer of Equipment	General Electric	Siemens
Tesla Rating for MRIs	N/A	N/A
Model Number	VCT-64	14440623
Serial Number	373906CN7	N/A
Provider's Method of Identifying Equipment	CT 2	CT 2
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	N/A	N/A
Mobile Tractor Serial Number/VIN #	N/A	N/A
Date of Acquisition of Each Component	November 2005	Spring 2015
Does Provider Hold Title to Equipment or Have a Capital Lease?	Title	Title
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.) <Use Attached Form>	\$1,742,764	\$2,437,190
Total Cost of Equipment (Replacement includes CT + Injector + Mobile CT + Freight + Taxes)	\$1,580,342	\$2,143,990
Fair Market Value of Equipment	\$278,311	N/A
Net Purchase Price of Equipment	\$1,580,342	\$2,143,990
Locations Where Operated	CMC-NE – 920 Church Street Concord, NC 28025	CMC-NE – 920 Church Street Concord, NC 28025
Number Days in Use/To Be Used in N.C. per Year	365	365
Percent of Change in Patient Charges (by procedure)	None	None
Percent of Change in Per Procedure Operating Expenses (by procedure)	None	None
Type of Procedures Currently Performed on Existing Equipment	All Primary CT Applications	N/A
Type of Procedures New Equipment is Capable of Performing	N/A	All Primary CT Applications (Better cardiac, low dose lung screening and overall radiation dose reduction in all exams performed.)

# Attachment H

CMC-NE

Volume by Month 2014 GE Lightspeed

Month	CTE2
Jan	1367
Feb	1240
Mar	1419
Apr	1333
May	1405
Jun	1305
Jul	1361
Aug	1407
Sep	1303
Oct	1433
Nov	1260
Dec	1242
<b>Total</b>	<b>16075</b>

# Attachment I

# SIEMENS

January 21, 2015

Carolinas Healthcare System  
Attn: Mr. Jeff Aho  
Associate Vice President  
Carolinas Medical Center  
1000 Blythe Boulevard  
Charlotte, NC 28203

Dear Jeff Aho,

The purpose of this letter is to confirm that Siemens Medical Solutions USA, Inc. (Siemens) will be responsible for removing your existing General Electric Lightspeed 4 with Serial Number 286680CN ("existing equipment") as part of your purchase of the Siemens Definition Force for Carolinas Medical Center - Northeast. The cost for the de-installation and removal is included in the price quotation for the replacement equipment, which totals \$1,780,000 (\$1,885,000 sale price minus \$105,000 trade).

The system will be removed from Service by a broker designated by Siemens for either re-sale purposes or parts. The system will not be placed into Service by Siemens in North Carolina without proper state approvals.

Sincerely,



Edwin Winicki  
Key Account Executive  
Siemens Healthcare, USA

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

[www.SiemensMedical.com](http://www.SiemensMedical.com)