

VAMC CHARLESTON, SC

PO# 534-4B5004

fluoroscopy capabilities. will need to be included in offers.

Qty	Part No.	Item Description
1		SOMATOM Definition AS(AS64 FAST) The SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) is Siemens' state-of-the-art single source CT that offers the possibility to maximize clinical outcome and to minimize radiation dose. The ultimate goal is to provide medical professionals more time to take better care of their patients. With this, it is set to raise the standard of patient-centric productivity. Using Siemens' z-Sharp technology the SOMATOM Definition AS can provide fast sub-millimeter volume coverage and very high spatial resolution. The high rotation time of 0.30 seconds delivers excellent temporal resolution. With Siemens' new FAST - Fully Assisting Scanner Technologies - the SOMATOM Definition AS can simplify typically time consuming and complex procedures: the scanning process gets more intuitive and the results become more reproducible. Its comprehensive low dose portfolio includes many unique features like CARE kV that sets the ideal voltage for every examination or industry's first Adaptive Dose Shield that prevents clinically irrelevant over radiation in spiral scanning. Additionally, its large bore of 78 cm opens CT to all patients, meaning that virtually no patient is excluded.
1		100 kW Power The 100 kW power allows the X-ray generator the use of maximum power of 100kW in fine adjustable steps.
1		SAFIRE #AWP 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 superior image quality enables to reduce dose by up to 60%*. *In clinical practice, the use of SAFIRE may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. The following test method was used to determine a 54 to 60% dose reduction when using the SAFIRE reconstruction software. Noise, CT numbers, homogeneity, low-contrast resolution and high contrast resolution were assessed in a Gammex 438 phantom. Low dose data reconstructed with SAFIRE showed the same image quality compared to full dose data based on this test. Data on file.

Qty	Item Description
1	<p>FAST CARE Platform</p> <p>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 overall 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.</p>
1	<p>CARE Child</p> <p>Dedicated pediatric CT imaging, including 70 kV scan modes and specific CARE Dose4D curves and protocols</p>
1	<p>DoseMAP</p> <p>DoseMAP - Siemens CT Dose Management Program - creates transparency in dose values and makes it possible to assess the dose situation DoseMAP provides functionalities like CARE Analytics to report, document and analyze dose. It lets the user access dose values per case, per examination type, or per patient. DoseMAP may also help to protect our patients from over radiation - thanks to its alert function that warns the operator in case set dose thresholds are exceeded. Additionally, to protect the set dose levels, access to scan protocols can be restricted to prevent unauthorized changes to the scan parameters</p>
1	<p>FAST Advanced Package</p> <p>Utilizing Siemens' unique FAST - Fully Assisting Scanner Technologies - time-consuming and complex procedures such as scan or recon preparations are extremely simplified - ideally reduced to a single click. The FAST Advanced Packages offers an attractive bundle of FAST features to comprehensively optimize scan and recon preparations.</p>
1	<p>FAST IRS</p> <p>Reconstruction computer for the preprocessing and reconstruction of the CT raw data. The reconstruction computer contains of a cluster of 3 high-performance GPU boards performing the preprocessing and reconstruction of the CT data. The raw data memory is 2 Tbyte. The peak reconstruction performance is up to 60 frames/sec.</p>
1	<p>Gantry tilt incl. tilted spiral</p> <p>Allows for sequential scanning with a tilted gantry between +/- 30°, depending on the vertical position of the table. Using the gantry tilt sensitive organs (like eye lenses) can be moved out of the scan range or it eases access during interventional procedures. The tilted spiral allows to utilize the gantry tilt for spiral scan modes.</p>
1	<p>Extended Field of View #AWP</p> <p>Software program with special reconstruction algorithms that allow for visualization of objects using a FOV up to 78 cm (non-diagnostic image quality). License to use software on a single unit.</p>
1	<p>UHR</p> <p>UHR mode delivers Ultra High resolution in plane of up to 24lp/cm for high defined imaging of small structures such as inner ear, joints or fractures of the bone</p>
1	<p>SOMATOM Definition AS</p> <p>The SOMATOM Definition AS is a scalable 20 to 128 slice platform. The new Definition AS configuration can be field upgraded to the next generation of integrated detector technology with the Stellar detector.</p>
1	<p>Rear cover incl. gantry panels</p> <p>Rear Cover including gantry control panels with control functionality from the backside.</p>
1	<p>Keyboard English</p> <p>Keyboard in the above-mentioned language.</p>

Qty	Item Description
1	Cooling System Air SOMATOM Definition AS air cooling for the dissipation of heat generated in the gantry.
1	Cable loom 25 m Cable loom used to connect the power distribution system (PDS) with the gantry.
1	Multi Purpose Table Patient table to support up to 200cm scan range. Motor-driven table height adjustment from min. 48 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: 2-200 mm/s, Distance between gantry front and table base 40 cm. Positioning aids: Positioning mattress, mattress protector, head-arm support (inclusive cushion), and non-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	High Cap. Patient & Trauma Tab.Top The high capacity and trauma table top offers the capability to support up to 307 kg/676 lbs of patient weight. It allows easy positioning and transfer from and to the table, due to its flat surface. Special accessories and an extended table top width of 530 mm ensure a safe and comfortable positioning for obese patients.
1	High Cap. Patient & Trauma Acc Kit The High capacity and Trauma accessory kit contains additional Patient restraint set with a width of 400mm and additional table extensions for feet and head.
1	Mattress for Bariatric Table Top This mat is used for scanning non-bariatric patients on the flat, bariatric table top. Placing this mat on the bariatric table top eliminates the need to exchange the table top when non-bariatric patients are scanned. This mat has a curved profile and enables comfortable positioning of non-bariatric patients.
1	Table Side Rails Side rails enable the quick and easy attachment of additional accessories such as an infusion bottle holder and i-control intervention module to the standard patient table.
1	Computer Desk #AWP New CT desk to accommodate the control components and color monitor. Width: 1200 mm, Depth: 800 mm, Height: 720 mm.
1	Computer Cabinet #AWP New cabinet to accommodate the computer system and UPS. Matched to the design of the control console table. Width: 800 mm, Depth: 800 mm, Height: 720 mm
1	Adapt. 3D Intervent. Suite Wireless The complete solution for 2D and 3D non fluoroscopic and 2D fluoroscopic minimal invasive volume interventions. The Adaptive 3D Intervention Suite contains Adaptive 3D Intervention for 3D volume intervention. Intervention Pro for spiral and sequential non- fluoroscopic interventional procedures and complete organ coverage with maximal flexibility and with minimal single click effort i-Fluoro CT for CT allows for 2 dimensional interventional fluoroscopic procedures i-Control CT supports interventional procedures as independent remote unit Foot switch for radiation release (x-ray).
1	Dual 19" Monitor #AWP Second 19-inch monitor for the Acquisition workplace (AWP)

Qty	Item Description
1	<p>Ceiling Kit for Second Monitor</p> <p>The dual monitor solution enables access to images and scan data while interacting with the patient in the scan room. The high resolution, flicker free, 19-inch (48 cm) color flat panel displays are mounted at the ceiling support. Consisting of: Two monitors, video transmitter, video receiver, power supply cable and a 30 m fiber-optic cable set for connecting the flat screen monitor.</p>
1	<p>Ceiling Support Intervention</p> <p>Ceiling support for the accommodation and safe installation of one or two flat screen monitors in the examination room for room heights from 2640 mm to 3680 mm.</p>
1	<p>19" flat screen monitor</p> <p>The 19" monitor option supports CT interventions and CT fluoroscopy with a display in the examination room.</p>
1	<p>Additional User Manual</p> <p>Additional user manual for the above selected CT system.</p>
1	<p>CT Project Management</p> <p>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.</p>
1	<p>CT Standard Rigging and Installation</p> <p>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.</p>
1	<p>Initial onsite training 32 hrs</p> <p>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.</p>
1	<p>Initial onsite training 32 hrs GovOffset</p>
1	<p>Additional onsite training 32 hours</p> <p>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.</p>
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Qty	Item Description
1	<p>AS-64 slice configuration z-Sharp Tech.</p> <p>The unique STRATON X-ray source utilizes an electron beam that is accurately and rapidly deflected, creating two precise focal spots alternating 4,608 times per second. This doubles the X-ray projections reaching each detector element. The two overlapping projections result in an oversampling in z-direction. The resulting measurements interleave half a detector slice width, doubling the scan information without a corresponding increase in dose. Siemens' proprietary UFC (Ultra Fast Ceramic) detectors and the corresponding 64-slice detector electronics enable a virtually simultaneous readout of two projections for each detector element - resulting in a full 64-slice acquisition. This sampling scheme is identical to that of a 64 x 0.3 mm allowing for reconstruction of 192 slices using 0.1 mm reconstruction interval increment. z-Sharp Technology, utilizing the STRATON X-ray sources and the UFC detectors, provides scan speed independent visualization of 0.33 mm isotropic voxels and a corresponding elimination of spiral artifacts in the daily clinical routine at any position within the scan field.</p>
1	<p>Stellant D Dual Ceiling w/Certegra WS</p> <p>New Stellant D Dual Ceiling mounted with Certegra Workstation NO Informatics. Short ceiling post - 580 mm. Other ceiling post lengths are available (different part numbers): 850 mm and 1000 mm. Includes Stellant D, Dual Head, ceiling mounted injector; Certegra workstation; installation and warranty through Medrad.</p>
1	<p>Medrad P3T 2.0 Bundle</p> <p>P3T 2.0 Bundle containing all PT3 Modules for the Certegra Workstation. Includes Medrad's P3T Cardiac, Abdomen and PA</p>
1	<p>CT Slicker</p> <p>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. Includes warranty from RADSCAN Medical.</p>
1	<p>Low Contrast CT Phantom & Holder</p>
1	<p>FAST Adjust</p> <p>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.</p>
1	<p>Lung Imaging</p> <p>This SOMATOM Definition scanner offers two specific scan protocols to provide Lung Imaging at 1.5 mGy CTDI or greater and for use with post-processing applications</p>
1	<p>FAST Scan Assistant</p> <p>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.</p>
1	<p>CARE kV</p> <p>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%.</p>
1	<p>CARE Profile</p> <p>CARE Profile: Visualization of the dose distribution along the topogram prior to the scan</p>
1	<p>CARE Dashboard</p> <p>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</p>

Qty	Item Description
1	Dose Notification Dose Notification: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition AS provides the ability to set dose reference values (CTDIvol, DLP) for each scan range. If these reference values are exceeded the Dose Notification window informs the user.
1	Dose Alert Dose Alert: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition automatically adds up CTDIvol and DLP depending on z-position (scan axis). The Dose Alert window appears, if either of these cumulative values exceeds a user-defined threshold.
1	Adaptive Dose Shield Adaptive Dose Shield for spiral acquisition to eliminate pre- and post-spiral over-radiation.
1	CARE Dose4D CARE Dose4D delivers the highest possible image quality at the lowest possible dose for patients - maximum detail, minimum dose. Adaptive dose modulation for up to 60% dose reduction
1	Surge Protective Device (SPD)

One complimentary biomedical tuition is included with the purchase of this system. This training must be completed before the end of the warranty period.

Offset Part 14408165 Additional User Manual

Offset Part CT_ADD_32 One Additional Onsite Training 32 hours

Detailed Technical Specifications

SOMATOM Definition AS (AS64 FAST CARE)

Description

The SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) is founded on Siemens' proprietary UFC detector system and the revolutionary STRATON X-ray source. In combination with Siemens' z-Sharp Technology, FAST (Fully Assisting Scanner Technologies) and CARE (Combined Applications to Reduce Exposure) solutions as well as Siemens exclusive CT Clinical Engines options, the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) offers unprecedented image quality and detail at significantly reduced patient exposure, as well as substantially increased diagnostic speed and confidence thus raising the standard of patient-centric productivity.

The STRATON source provides direct oil cooling of the anode, eliminating the need for heat storage capacity (0 MHU). The resulting small and compact design enables an unprecedented cooling rate of 7.3 MHU/min as well as reliable performance even when operating at a very high rotation time of 0.30 sec. In combination with the HeartView CT option temporal resolution of 150 ms of the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) allows to reliably scan even high heart rates, e.g. in acute chest pain evaluation, in coronary visualization, and in functional analysis of the heart.

Together with the unique z-Sharp Technology that routinely enables the industry's highest isotropic and scan field position independent spatial resolution of up to 0.24 mm voxel size, it visualizes the smallest anatomical structures with exceptional quality, whether the complex inner-ear bones, the finest details of the coronary tree or intracranial, pulmonary, mesenteric, renal and peripheral vessels. It also helps to perform accurate stenosis measurements or stent planning with outstanding precision. Neuro head image quality is significantly improved with Neuro BestContrast, by optimizing grey/white matter differentiation without increase in radiation dose.

The UFC (Ultra Fast Ceramics) detector of the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) acquires 64 slices per rotation.

In combination with a 78 cm large bore, 200 cm scan range, and the 100 kW (depends on clinic network) generator power, it adapts to virtually any patient independent of size or condition, helping to save precious time from scan to diagnosis to treatment. When doing interventional CT for example, the easy patient access enables fast positioning of interventional instruments and thus provides a larger and more comfortable sterile environment. Or for emergency room examinations, the large bore of the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) virtually eliminates the necessity to reposition and adjust life support equipment. Additionally, positioning and scanning of bariatric patients is significantly simplified while improving patients comfort.

With all this, the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) offers the unique combination of industry's highest image detail and a very high sub-millimeter volume coverage enabling fast whole body examinations - adapting to challenging patients such as poly-trauma and incautious or uncooperative patients, leading to an improvement in image quality and patient comfort.

Siemens has developed many significant products and protocols that follow the "As Low as Reasonably Achievable" (ALARA) principle to reduce radiation dose to the lowest possible level. This desire for as little radiation exposure as possible lies at the heart of our CARE – Combined Applications to Reduce Exposure - research and development philosophy. The SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) consequently offers a unique portfolio of dose saving features; many of them being industries first like the Adaptive Dose Shield, CARE kV or 70kV scan modes. Using Siemens' CARE solutions radiation dose can be significantly reduced compared to conventional CT systems.

With the introduction of Siemens' unique FAST CARE platform, the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) 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 overall clinical outcome by creating reproducible results, making diagnosis more reliable and reducing patient burden through streamlined examinations.

With its unique Adaptive 4D Spiral scan mode (optional) the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) overcomes the coverage limitations in dynamic CT imaging when using a static detector and allows for up to 9 cm coverage in dynamic CT imaging.

Description

In addition the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) optionally offers a built in 3D minimal invasive suite, enabling 3D guided interventions with full control of the radiologist due to the all new wireless in-room control.

Also the SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) offers the widest range of clinical applications options, which allow performing everything from fast and confident diagnoses to comprehensive reporting in only a matter of minutes, reviewing results before the patient is off the table.

1. Gantry:

Aperture: 78 cm; power supplied via low-voltage slip ring. Scanning system: Detector system based on Siemens' proprietary UFC (ultra fast ceramics) with 23,552 elements, 64 detector electronic channels (DAS) utilized for up to 64 slices/rotation acquisition, and 1,472 measuring channels per slice (The measuring system can contain replacement components).

In cases of very low signal at the detector (e.g. when scanning bariatric patients), the Adaptive Signal Boost improves image quality by amplifying individual pixels based on an analysis of the surrounding image data. It reduces streaks and noise and maintains the correct HU values for large patients.

Spiral acquisition modes 64-slice configuration:

64x0.6mm, 32x0.6mm, 16 x 0.3 mm (optional with z-UHR), 40 x 0.6 mm8 x 0.6 mm (UHR), 16 x 1.2 mm

Sequence acquisition modes 64-slice configuration:

64 x 0.6, 32x0.6, 30x0.6, 20x0.6 mm, 8x0.6 mm (UHR), 2x1mm, 6x1.2 mm, 16x1.2 mm, 12x1.2mm, 1x5 mm, 1x10 mm

Three laser light markers: Horizontal, sagittal, and vertical laser light that shows the isocenter position of the scan plane.

2. Tube Assembly:

Source: STRATON high performance X-ray source. Tube current range: Single source 20- up to 800 mA; Tube anode heat storage capacity 0 MHU. Cooling rate 7.3 MHU/min (5,400 kJ/min). Focal spot size according to IEC 60336: 0.7 x 0.7 mm/7°, 0.9 x 1.1 mm/7°. Computer controlled monitoring of anode temperature, Multifan principle with flying focal spot.

3. High Power X-ray Generator:

Microprocessor-controlled, low-noise high-frequency generator with integrated, automatic self-testing system for continuous monitoring of operation. Settings: High-voltage range 70, 80, 100, 120 and 140 kV; power max. 100 kW (depends on clinic network), adjustable in fine steps.

4. z-Sharp Technology:

The unique STRATON X-ray source utilizes an electron beam that is accurately and rapidly deflected, creating two precise focal spots alternating 4,608 times per second. This doubles the X-ray projections reaching each detector element. The two overlapping projections result in an oversampling in z-direction. The resulting measurements interleave half a detector slice width, doubling the scan information without a corresponding increase in dose. Siemens' proprietary UFC (Ultra Fast Ceramic) detectors and the corresponding 64-slice detector electronics enable a virtually simultaneous readout of two projections for each detector element – resulting in a full 64-slice acquisition. z-Sharp Technology, utilizing the STRATON X-ray sources and the UFC detectors, provides scan speed independent visualization of 0.33 mm isotropic voxels and a corresponding elimination of spiral artifacts in the daily clinical routine at any position within the scan field.

5. Control and Evaluation Unit:

Control box: CT control with patient intercom, user-recordable patient instruction system, 30 automatic patient instruction (API) text pairs are available in nine languages.

syngo Acquisition Workplace: The syngo Acquisition Workplace provides an intelligent and reliable workflow for data acquisition, image reconstruction and routine post-processing at the CT scanner. Built on the unique syngo platform, the syngo Acquisition Workplace is intuitive and user friendly. Computer system: High-performance computer with 1x Xeon QC6700, 2.66GHz, NVIDIA Quadro FX1700 DVI graphics card for fast 3D post-processing. High resolution, flicker free, 19-inch (48 cm) color flat panel display for medical diagnostic applications combining the demanding requirements of medical imaging with the advantages of liquid crystal displays. This display provides a resolution of 1280 x 1024 and has a wide viewing angle, features high contrast even under high ambient light conditions. Display light output stability is ensured by controlled backlight throughout the whole lifetime. Keyboard and mouse, 8 Gbyte RAM, 146 Gbyte image storage for 260,000 uncompressed images, CD-R

Description

700 MB for 1,100 images. DVD DICOM with 4.7 GB media for 8,400 images. External USB 2.0 devices for data storage are supported (recommended: Iomega 160 Gbyte External Hard Drive Hi-Speed USB 2.0; Maxtor One Touch 160 Gbyte External Hard Drive).

6. CT Image Computer System:

Reconstruction computer for the preprocessing and reconstruction of the CT raw data. The reconstruction computer contains of a cluster of 2.2 GHz dual kernel high-performance processors performing the preprocessing and reconstruction of the CT data with up to 40 images per second. The raw data memory is 750 Gbyte.

7. Cooling System:

SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) can be equipped with either air or water cooling adapting to your room requirements. This optimizes system availability independently of the ambient conditions and reduces expensive reconstruction costs. System operating temperature: 18-28°C, 18 - 75 % rel. humidity (not condensing).

8. syngo User Software:

syngo features an intuitive and thus easy-to-learn user interface developed from prototypes in close cooperation with users. syngo visualizes the examination in individual process steps on so-called task cards, such as patient registration or examination card. A large number of functions and input parameters as well as the language used can be selected according to individual requirements. Frequently repeated processes can be automated and saved.

Patient registration:

The system can accept patient data in different ways. These include entering the data via keyboard or transfer of a worklist via network. DICOM Worklist: Software module for accepting lists of patient data and exam requirements from a Radiology Information Systems (RIS) via DICOM Get Worklist functionality. The program enables very efficient working and ensures consistent patient data. In emergency cases, fast registration is possible. Here the system automatically assigns an emergency number which can later be replaced by the actual patient number. The input profile can be designed individually.

Examination card:

The SOMATOM Definition AS (AS FAST CARE, 64-slice configuration) is delivered with a large number of predefined examination protocols (e.g. for pediatric applications), making examination planning a very fast and efficient procedure. Example: A three-phase examination of the liver available as independent protocol only needs to be adapted to the patient's individual situation. Each examination is represented pictorially as a so-called "chronicle", which views the individual phases of the examination separately. This has the advantage that the individual phases of the examination can be accessed quickly and selectively and changes to the protocol can be made easily in graphical mode via drag-and-drop using the mouse. With a so-called routine window, it is possible to adapt individual examination parameters, representing a submenu of the essential parameters and giving information at a glance about the parameterization of the examination.

Viewing card:

On the viewing card it is possible to move interactively with the mouse through the image volume of the ongoing examination. The images of different examinations can be displayed simultaneously for comparison. A large number of functions are available for evaluation, documentation and archiving.

Filming card:

A virtual film sheet shows a 1:1 display of the film sheets to be printed out, thus enabling an effective preview of filming jobs and rewindowing of the images, as well as providing a large number of evaluation functions. Layout changes are possible interactively with up to 64 images. The printout parameters for the autofilming process running in parallel to acquisition or reconstruction are also defined with the filming card. Freely selectable positioning of images onto film sheet, configurable image text.

3D card:

Secondary reconstruction calculation: Real-time MPR for real-time reformatting of secondary reconstructions. Slice orientation: coronal, sagittal, oblique and double-oblique. Secondary reconstructions can be determined from the topogram, other MPR views or from a 3D surface reconstruction. Reconstruction with selectable slice thickness.

CT Angio: Software for the reconstruction of angular projections from the images of a spiral data record for the display and diagnosis e.g. of aneurysms, plaques, stenoses, vascular anomalies or vascular origins. MIP: Maximum Intensity Projection, MinIP: Minimum Intensity Projection and Thin MIP available. Interfering or irrelevant parts of the image can be eliminated with the integrated volume editor. The angular projections are reconstructed around a definable axis, whereby the maximum CT values in this direction are selected for each angular projection. The resulting images can be viewed with the CINE function as a series of images with a 3D image effect.

Description

3D Display: Software for the three-dimensional display of surfaces of a body region from a series of continuous slices, for display and analysis of complex anatomies, e.g. the visceral cranium, pelvis, hips, for the purpose of planning surgical interventions. The 3D objects can be tilted and rotated interactively on the monitor and can also be displayed in relation to multiplanar reconstruction (MPR).

Volume card: Volume scans of tissues and organs, based on a "region-growing" algorithm and interactive ROI definition.

DynEva card: Software for dynamic evaluation of the contrast enhancement in organs and types of tissues, enabling the reconstruction of

- Time-density curves (up to 5 ROIs)
- Peak-enhancement images
- Time-to-peak images.

Video Capture and Editing Tool: Software contains integrated solution for imaging and visualization of 4D information, allowing the generation and editing of video files for improved diagnoses, recording and teaching. A wide range of multimedia formats is supported, e.g. AVI, Flash (SWF), GIF, QuickTime (MOV), streaming video.

Additional task cards available as an option.

9. Examination and Evaluation Functions:

Topogram: Scanning perspectives: a.p., p.a., lat.; length of scan field: 128 – 1574mm (optional up to 1974 mm), width of scan field: 512 mm, 1.5 - 16s (optional 20.22s). The topogram can be switched off manually when the desired examination length is reached.

Tomogram: Scan field size: 50 cm. Standard scan times: 0.30, 0.33, 0.5 and 1 seconds. Slice thickness in sequence: 0.6, 0.75, 1, 1.2, 1.5, 2.0, 2.4, 3, 3.6, 4.0, 4.8, 5, 6, 7, 7.2, 8, 9, 10, 12, 14.4, 15, 20 mm
Slice thickness in spiral: 0.4**, 0.5**, 0.6, 0.75, 1.0, 1.5, 2, 3, 4, 5, 6, 7, 8, 10 mm Real-time image display.
Immediate image reconstruction and display without time delay simultaneously to data acquisition in 512 x 512 matrix size.

Spiral: Scanning technique for continuous volume scans with continuous table feed in multirotation mode. Max. scan time 100 seconds with full low-contrast resolution. Volume length 1540 mm (optional 1940mm) with full low-contrast resolution (max. 200 cm scan range possible using multiple automatic ranges). Selection of the pitch factor between 0.3 and 1.5 depending on scan mode. Selection of up to 33 separately parameterizable examination ranges in a patient protocol. In addition individual anatomic sections can be successively combined and then scanned automatically. Storage of up to 10,000 examination protocols. Rotation times/cycle: 0.30 sec, 0.33 sec, 0.5 sec and 1 sec.

Adaptive 4D Spiral (optional): Continuous multirotational data acquisition with continuous smooth bi-directional table movement. Quantitative evaluation and graphical display of time-density curves over entire organs.

The intelligent algorithm Neuro BestContrast improves native head image quality especially grey/white matter differentiation. Images are decomposed into high and medium/low spatial frequencies. While relevant tissue information is contained in medium and low frequencies noise is dominated by high frequencies. Separate processing of medium and low frequency information improves the tissue contrast without amplifying image noise resulting in a better signal to noise ratio.

Dynamic: Program for functional dynamic examinations. Serial scanning technique in one slice position with variable scans cycle times.

Multiscan spiral examination without table feed: Continuous multirotational data acquisition in one slice position. Quantitative evaluation and graphical display of time-density curves.

WorkStream4D with Asynchronous Recon: 4D workflow with direct generation of axial, sagittal, coronal, or double-oblique images from standard scanning protocols. Elimination of manual reconstruction steps. Asynchronous Recon allows for multiple image reconstructions and reformats, parallel to scanning. With this feature, up to eight reconstructions job requests can be loaded into a scan protocol. Immediately upon completion of the scan acquisition, these reconstruction jobs are automatically executed in the background without delaying the start of next patient examination.

Image reconstruction and storage: Image reconstruction in full resolution (512 x 512 matrix) takes place during the examination with up to 40 images per second, with full cone beam reconstruction, z-Sharp Technology and full

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image quality. Reconstruction fields of 5 cm to 50 cm through raw data zoom with the possibility of freely selecting the image center either prospectively before each scan or retrospectively. Reconstructions of different slice thicknesses from a single raw data record, e.g. lung soft tissue and lung high-contrast with CombiScan, with simultaneous suppression of partial volume artifacts. Up to 8 reconstructions per scan range can be predefined with the examination protocol. Patient-related storage of the image and raw data.

Image display: 1024 x 1024 display matrix; screen splitting configurable up to 64 image segments; CT value scale from -1024 to +3071 HU. For very dense objects, the CT value scale can be extended from -10240 to +30710 HU (extended CT scale) e.g. for suppressing metal artifacts.

Image evaluation: Complete software-controlled image evaluation program for all diagnostic requirements.

CINE Display: Dynamic display technique for the visualization of time or volume series. A series of up to 1024 images can be displayed at a frame rate of at least 30 f/s. Automatic or interactive mouse-operated control.

Multitasking functions: Simultaneous processing during operation of the scanner.

Real-time Display: Image reconstruction in pace with the examination in full image quality (512 x 512 matrix) with up to 40 images/second (with full cone beam reconstruction and z-Sharp Technology).

Metro Display: Simultaneous display, processing and evaluation of images from other patients while the current patient is being scanned.

Metro Documentation: Simultaneous documentation of images from any previously examined patient while the current patient is being scanned.

Metro Copy: Automatic transfer of image data to the syngo CT Workplace (optional) or a DICOM network node.

10. Network Module:

For the connection to a local Ethernet (10, 100 Mbit or 1-Gigabit) in order to communicate with networked printers, diagnostic and therapy workstations, RIS or HIS systems and teleradiology routers.

Scope of functions:

- Configurable network stations.
- Unlimited selection of stations.
- DICOM Standard (Digital Imaging and Communications in Medicine) for the transfer of information between DICOM-compatible units from different manufacturers. The scope of functions is described in detail in the DICOM Conformance Statement, and the standard version comprises the functions Send/Receive, Query/Retrieve and BasicPrint, Worklist, Storage Commitment, MPPS (Modality Performed Procedure Step).

11. Integrated CARE Solutions:

UFC Detector: Up to 30% dose reduction compared to conventional CT detectors. High efficiency for low mAs requirements enable best possible image quality with low patient dose.

Adaptive Dose Shield: world's first dynamic tube collimation that protects the patient from clinically irrelevant radiation in every spiral scan.

CARE Filter: Specially designed X-ray exposure filter installed at the tube collimator. Up to 25% dose reduction with increased image quality.

Pediatric Protocols: Special examination protocols with 80 kV and a large range of adjustable mAs values for optimum adaptation of the radiation exposure to the age and weight of the child to be examined.

CARE Topo: Real-time topogram, Manual interruption possible once desired anatomy has been imaged.

CARE Bolus: Operating mode for CM-enhancement triggered data acquisition. The objective is optimum utilization of the contrast medium bolus in its "plateau" phase in the target organ. This option has been especially adapted to the increased speed and timing requirements resulting from the multirow capability and faster rotation. The CM enhancement is observed via monitoring scans in a user-defined ROI with a trigger threshold. As soon as the enhancement reaches its predefined threshold, the spiral scan is triggered as quickly as possible. License for software use on one modality.

CARE kV: First automated, organ-sensitive voltage setting to improve image quality and contrast-to-noise-ratio

Description

while optimizing dose and potentially reducing it by up to 60%.

CARE Child: Dedicated pediatric CT imaging, including 70 kV scan modes and specific CARE Dose4D curves and protocols

CARE Profile: Visualization of the dose distribution along the topogram prior to the scan

CARE Dashboard: Visualization of activated dose reduction features and technologies for each scan range of an examination to analyze and manage the dose to be applied in the scan

CARE Dose Configurator: Enhancement of Siemens' renowned real-time dose modulation CARE Dose4D, introducing new reference curves for each body region and for each body habitus allowing to adjust the configuration even more precisely to the patient's anatomy.

Dose Notification: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition AS (AS+ Excel Edition, 128-slice configuration) 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.

Dose Alert: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition AS (AS+ Excel Edition, 128-slice configuration) 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.

12. Siemens Remote Service:

Siemens Remote Service (SRS) offers a wide range of medical equipment-related remote services resulting in increased system availability and efficiency. SRS employs sophisticated authentication and authorization procedures, state-of-the-art encryption technologies and logging routines together with strictly enforced organizational measures that provide optimal patient data security and access protection. The following SRS services are included for all service agreement customers and during warranty period:

Remote Diagnosis & Repair: In case of an unforeseen system malfunction, Siemens competent experts may directly connect with the CT system in order to identify the problem quickly. Moreover the remote repair function enables Siemens to often correct software errors immediately. Should an engineer on site be required, Remote Diagnosis & Repair allows Siemens to identify defective parts efficiently and accelerate their delivery, thereby keeping repair times to a minimum.

Event Monitoring: Event Monitoring screens the performance of the system. If a parameter deviates from a predefined value, a status message is automatically sent to the Siemens UPTIME Service Center. Service Engineers may evaluate the status message at periodic intervals and may initiate appropriate action within the scope of the service agreement.

SOMATOM LifeNet: An information and service portal directly at the CT Scanner consoles, featuring up to date information on CT products, application guides, accessories and training schedules as well as download of the latest scan protocols and 90 day free trial licenses on available software applications.

Notes on software use: Use of the entire integrated software, including optional software programs, is restricted exclusively to the application with this system.

Note: This product is in compliance with IEC60601-1-2 and fulfills CISPR 11 Class A. Note: In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Dose reduction with CT has been limited by the currently used filtered back projection (FBP) reconstruction algorithm. When using this conventional reconstruction of acquired raw data into image data, a trade-off between spatial resolution and image noise has to be considered. Higher spatial resolution increases the ability to see the smallest detail; however, it is directly correlated with increased image noise in standard filtered back projection reconstructions as they are used in CT scanners today.

Iterative reconstruction approaches allow decoupling of spatial resolution and image noise. With the Sinogram Affirmed Iterative Reconstruction (SAFIRE), correction loops are introduced into the image generation process. These iteration loops utilize raw-data information to significantly improve image quality. Additionally, image noise is removed in the iterative corrections without degrading image sharpness. The noise texture of the images is comparable to standard well-established convolution kernels. The new technique results in an image quality with reduced noise and increased image sharpness that can be translated to dose savings of up to 60 %* for a wide

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range of clinical applications.

*In clinical practice, the use of SAFIRE may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. The following test method was used to determine a **54 to 60%** dose reduction when using the SAFIRE reconstruction software. Noise, CT numbers, homogeneity, low-contrast resolution and high contrast resolution were assessed in a Gammex 438 phantom. Low dose data reconstructed with SAFIRE showed the same image quality compared to full dose data based on this test. Data on file.

Siemens has always been at the forefront to deliver highest image quality and reduce radiation dose at the same time to the lowest possible level. But today, an additional barrier has to be mastered to maximize clinical outcome: overcome the growing restrictions and limitation of resources. With FAST CARE, Siemens opens a new chapter in CT, explicitly focusing on the optimization of patient-centric productivity in modern healthcare delivery. With FAST CARE, time-consuming and complex procedures such as scan or recon preparations are extremely simplified – ideally reduced to a single click. The scanning process gets more intuitive and the results become more reproducible.

The FAST CARE platform consists the following features:

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.

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%.

CARE Child: Dedicated pediatric CT imaging, including 70 kV scan modes and specific CARE Dose4D curves and protocols

CARE Profile: Visualization of the dose distribution along the topogram prior to the scan

CARE Dashboard: Visualization of activated dose reduction features and technologies for each scan range of an examination to analyze and manage the dose to be applied in the scan

CARE Dose Configurator: Enhancement of Siemens' renowned real-time dose modulation CARE Dose4D, introducing new reference curves for each body region and for each body habitus allowing to adjust the configuration even more precisely to the patient's anatomy.

Dose Notification: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition AS (AS+ Excel Edition, 128-slice configuration) 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.

Dose Alert: As requested by the new release of the standard IEC 60601 3rd edition, the SOMATOM Definition AS (AS+ Excel Edition, 128-slice configuration) 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.

With Siemens' unique STRATON tubes, the tube voltage can now be reduced to 70kV which helps to reduce radiation exposure to patients. With prior tube technology, the minimum tube voltage setting was 80 kV. The new tube voltage setting of 70 kV helps to further reduce the radiation dose to small pediatric or neonate patients.

CARE Child consists of:

- dedicated 70 kV scan modes
- new CARE Dose4D curves for children
- respective Children Protocol utilizing these features

DoseMAP consists of three parts.

These three parts in combination with each other deliver a complete and comprehensive dose management.

Report Dose: Create transparency and document dose values.

- DICOM SR Dose Reports: DICOM structured file allows for the extraction of dose values (CTDIvol, DLP)

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- DoseLogs: Whenever a limit exceeds the set up reference dose levels (Dose Notification and Dose Alert) automatically a report is created on the system.
The report can for example be used for audit purposes.

Analyze Dose: Assess the dose situation.

- CARE Analytics: makes it possible to set a query and retrieve DICOM SR Dose Reports. With CARE Analytics it is possible to assess DICOM SR Dose Reports from different DICOM nodes and document dose data to get an insight in radiation dose per case or examination type, cumulative dose per patient or to start in-house dose reporting.
Exported and structured dose information makes it possible to monitor the dose over time and gives an insight in the radiation values per examination type. Based on that outcome, measures may eventually be defined to reduce dose.

- CARE Dashboard: Pre-examination dose check-up by showing an overview of all the used dose reduction features per scan.

- CARE Profile: Pre-examination dose check-up by displaying the dose distribution prior to the scan at every z-position.

Protect Dose: Manage access to protocols and potentially protect patients from over-radiation

- Access protection: by setting a password it is only possible to change and access the scan protocols in the Scan Protocol Assistant by authorized staff members only.

- Dose Notification and Dose Alert: Both functionalities may help to protect from over-radiation and warn the operator in case set dose thresholds are exceeded.
Dose Notification checks the dose values per chronicle entry.
Dose Alerts checks the accumulated dose per z-position.

The FAST Advanced Package consists of the following features:

FAST Planning: assists the scan and reconstruction planning, based on a topogram, to provide an easier, faster and standardized workflow in CT scanning. FAST Planning features the selection of the anatomical region of interest from a list of prospectively defined scan and reconstruction ranges, automatic detection of the scan region(s) of interest and proposal of corresponding scan range(s) in the topogram (in a narrow or wide lateral FOV), optimized FOV and automatic iso-center adaptation for Head scans.

FAST Spine: provides various modes that automatically create anatomically orientated spine reconstructions based on a 3D volume. It provides an easier, faster and standardized workflow in CT scanning. FAST Spine features automatic segmentation of the spinal canal, automatic labeling of the vertebrae, anatomically oriented slices – (orthogonal to the spinal canal), coronal and sagittal reconstructions which refer to the curvature of the spinal column and more. All modes offer the possibility to adapt the results manually.

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.

FAST Cardio Wizard: an intuitive guidance software, fully integrated in the cardio workflow. It allows training the cardiac workflow and provides guidance and support during the examination. It is based on the latest cardio application training material and provides helpful tips to avoid common problems and pit-falls. It features step-by-step on-screen for various cardiac examinations. Text and images are delivered in a default setting based on Siemens' latest application training, but are fully customizable by the user.

The FAST Advanced Package requires the FAST CARE Platform.
FAST Spine requires Workstream 4D.
FAST Cardio Wizard requires HeartView CT.

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In today's clinical environment, there are cases for which it is important to visualize areas outside of the normal 50 cm CT scan field. For this reason, special reconstruction algorithms have been created to allow for visualization of objects using a FOV up to 78 cm. This extra versatility was primarily created to assist with radiation treatment planning applications. The image quality for the area outside the standard 50 cm scan field does not meet the image quality specifications shown in the technical data sheet (non-diagnostic image quality). Image artifacts may be common in the area outside the normal 50 cm scan field, depending on the anatomy scanned.

The Adaptive 3D Intervention Suite contains

Adaptive 3D Intervention as a built-in 3D minimal non-invasive solution for spiral and sequential CT guided interventional procedures. It allows for 3D volume intervention - near to real-time interventional CT Imaging with coronal/sagittal/oblique images. It also allows for switching scan modes on the fly during intervention. Additionally an interventional 3D toolbar is available supporting *syngo*® 3D tools, Path Planning, to navigate the needle cautiously during the intervention including:

- Auto Needle Detection
- Switch between patient oriented view and needle oriented view
- i-NeedleSharp to avoid needle artifacts during an sequential intervention. i-needle sharp can be switched on and off.

Intervention Pro supports spiral and sequential non-fluoroscopic interventional procedures and complete organ coverage with maximal flexibility and with minimal single click effort

Intervention Pro supports spiral and sequential non-fluoroscopic interventional procedures and complete organ coverage with maximal flexibility and with minimal single click effort. It is designed for fast and intuitive non-fluoroscopic interventional procedures such as drainage, biopsies or pain therapy. It also allows for switching scan modes between sequential to spiral mode on the fly during CT intervention. It contains: 2D Basic interventions, i-Sequence mode, i-Spiral mode, customizable user layouts and interventional toolbars.

i-Fluoro CT

i-Fluoro CT allows for ultrafast 2-dimensional interventional fluoroscopic procedures. Fluoroscopic scans are acquired with low dose techniques and displayed in real time on, with up to 10 frames/s, an additional in-room monitor. It also allows for switching scan modes on the fly during intervention.

HandCARE™ for i-Fluoro reduces on-line radiation exposure to the user and the patient by switching the radiation off in the upper segment of the 360° tube-rotation. It switches off the x-ray exposure for a 100° angle between three user selectable positions (10:00, 12:00 and 2:00 o'clock). Thus providing a significant dose saving to the operator's hand and to the patient while keeping the image quality constant.

i-Control CT

The interventional control panel (i-Control) supports interventional procedures as independent remote unit. The i-Control can be attached to the side rails of the table*, or an i-Control trolley*. i-Control Wireless CT module supports interventional procedures as independent wireless remote unit.

Documentation: Images are stored in file system for easy filming and archiving.
Foot switch for radiation release (x-ray).

* Optional

Siemens proprietary *syngo* software visualizes the examination workflow in individual process steps on so-called task cards, such as the patient registration, examination, viewing or 3D task card. The dual monitor feature enables the split of the *syngo* task cards on two monitors in two different ways. This option includes the *syngo* dual monitor software and a second high resolution, flicker-free, 19-inch (48 cm) color flat panel display for medical diagnostic applications. This display provides a resolution of 1280 x 1024 and has a wide viewing angle, features high contrast even under high ambient light conditions. Display light output stability is ensured by controlled backlight throughout the whole lifetime.

Possibility one: One monitor displays the viewing task card, for instance for the interactive review of image data. All other *syngo* task cards are displayed on the second monitor.

Possibility two: Both monitors display the 3D-Basic task card, enabling the viewing and manipulation of two

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different datasets on two monitors. It enables the comparison of two series from the same patient e.g. pre and post contrast or the comparison of two studies from the same patient e.g. pre and post surgery.
<p>The space-saving ceiling installation along with the large movement range of the support allow maximum operating convenience when positioning the monitor.</p> <p>Consisting of:</p> <p>Ceiling support with installation kit, voltage supply.</p>
<p>Scope of delivery and functions:</p> <ul style="list-style-type: none"> - High-resolution, flicker-free monitor with 48 cm (19 in) flat screen, 1280 x 1024 resolution, 75 frames/s for parallel viewing and visual checking during the examination. The max. depth of the monitor is only 111 mm. In addition, a ceiling support or a monitor cart is required for installing the flat screen monitor (optional).
<p>The unique STRATON X-ray source utilizes an electron beam that is accurately and rapidly deflected, creating two precise focal spots alternating 4,608 times per second. This doubles the X-ray projections reaching each detector element. The two overlapping projections result in an oversampling in z-direction. The resulting measurements interleave half a detector slice width, doubling the scan information without a corresponding increase in dose. Siemens' proprietary UFC (Ultra Fast Ceramic) detectors and the corresponding 64-slice detector electronics enable a virtually simultaneous readout of two projections for each detector element – resulting in a full 64-slice acquisition. This sampling scheme is identical to that of a 64 x 0.3 mm allowing for reconstruction of 192 slices using 0.1 mm reconstruction interval increment. z-Sharp Technology, utilizing the STRATON X-ray sources and the UFC detectors, provides scan speed independent visualization of 0.33 mm isotropic voxels and a corresponding elimination of spiral artifacts in the daily clinical routine at any position within the scan field.</p>
<p>This SOMATOM Definition scanner offers two specific scan protocols to provide Lung Imaging at 1.5 mGy CTDI or greater and for use with post-processing applications</p> <p>LungLowDose Uses CARE Dose 4D in conjunction with CARE kV and adaptive dose shield to provide imaging of the lung with a default scanner protocol set at 1.5 mGy CTDI. This protocol provides images from .6 mm and are acquired using .6 mm collimation and a z-sharp mm of 64X0.6 mm off. Default settings of a reference kVp of 120 and quality Reference mAs of 20 with rotation speed of .50 are used to achieve this dose. This protocol is set using a Kernel of B70f, B31F and B70F for axial viewing.</p> <p>LungCARE Uses CARE Dose 4D in conjunction with CARE kV and adaptive dose shield to provide imaging of the lung with a default scanner protocol set at 1.5 mGy CTDI. This protocol provides images from .6 mm and are acquired using .6 mm collimation and a z-sharp mm of 64X0.6 mm off. Default settings of a reference kVp of 120 and quality Reference mAs of 20 with rotation speed of .50 are used to achieve this dose. This protocol is set using a Kernel of B80f, B31F and B60f to be automatically transferred and post-processed on a Siemens workstation.</p>
<p>Eaton Surge Protective Device (SPD) Panel, 250kA per phase rating, 277/480VAC Wye, Three Phase (4W+G), Surge Counter, Dimensions 12.05"H x 7.47"W x 6.69" D, Weight: 13.5 lbs, 10 Year Limited Warranty</p>