

VA BIRMINGHAM, AL
PO# 521-4B5001

Item No. Qty

Description

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The Discovery CT750 HD is the world's first head and whole body high definition Spectral CT system. It offers enhanced visual clarity and potential dose reduction when scanning all parts of the body, and all ages. The new FREEdom Edition is the foundation for the advanced Cardiovascular features of SnapShot Freeze, Snap Shot Assist and Cardiac Spectral CT*. Powered by the Gemstone Detector, the Discovery CT750 HD offers the highest available cardiac spatial resolution in the industry at 18.21p/cm* and features Gemstone Spectral Imaging, the 1st quantitative dual energy on the marketoptionall. The Discovery CT750 HD output is a valuable medical tool for the diagnosis of disease, trauma, or abnormality and for planning, guiding and monitoring therapy. This configuration includes enhanced features of Adaptive Statistical Iterative Recon (ASiR). (* Based upon internal test data comparing Discovery CT750 HD cardiac half-scan spatial resolution to data from Advanced CT Scanners for Coronary Angiography, ImPACT Report CEP10043, March, 2010 available at <http://www.impactscan.org>)

See More

The Discovery CT750 HD delivers unparalleled image quality enabling the visualization of greater anatomical detail, for assessment and diagnosis.

- up to 33% improvement in spatial resolution for body modes
- demonstrates best-in-class spatial resolution of 0.23mm(calculated using 0% MTF) over the full 2 meter scan range
- up to 47% improvement in spatial resolution for cardiac scan modes (cardiac acquisition is optional)
- up to 40% improvement is low contrast detectability for greater soft tissue visualization, allowing improved visualization of smaller low contrast structures down to 2mm in size.

Less Dose

The Discovery CT750 HD innovations continue with advances in reconstruction technology resulting in dramatic dose reduction opportunities in the entire body compared to predecessor CT systems. ASiR :provides users with a new and innovative image reconstruction technology to reduce unwanted noise in diagnostic images. ASiR accurately models the noise in the raw data space and thereby removes the noise, allowing users to main image quality (pixel standard deviation) at up to 50% less dose. (* In clinical practice, the use of ASiR 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.

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	<p>ASiR dose reduction was measured on a standard 20cm water phantom. The test involved maintaining constant pixel standard deviation as the mA was reduced, from 300 to 150mA, at 120kV).</p> <p>Low kV Scanning: The Discovery CT750 HD provides the ability to scan with energies as low as 80kV. The physics of the k-edge absorption properties of Iodine at the lower energy inherently increases the image contrast. This is important for vascular studies. The Performix HD tube can deliver as much as 700mA at 80kVp. Both Veo and ASiR may be able to reduce image pixel standard deviation (noise) reduction and improve LCD(3). This is important for exams where good CNR(boost in contrast from lower kV, with potentially reduced noise from ASiR and Veo) is desired, such as liver studies (3 - In clinical practice, the use of ASiR and Veo may reduce CT patient dose depending on the clinical task, patient size, anatomical ocation 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. ASiR and Veo may reduce image pixel standard deviation and enable an improvement in LCD. In clinical practice, the actual level of image pixel standard deviation reduction and LCD improvement may vary. Consult with a radiologist and a physicist.</p> <p>Discovery CT750 HD Technology</p> <p>The revolutionary clinical advances of the Discovery CT750 HD are achieved via technological leaps forward in the entire image chain including reconstruction hardware and algorithms.</p> <p>The key technological advancement is GE's proprietary Gemstone (TM) Detector enabling the improvements in spatial resolution, low contrast detectability, and spectral imaging(optional). The Gemstone detector is a garnet based CT scintillator chosen for its highly efficient optical properties. Gemstone detector sets a new standard in CT scintillator performance supporting the next generation of CT imaging applications such as spectral imaging. This is the first new CT scintillator to be developed in the past 20 years and is designed to support high definition imaging.</p> <p>System components: This whole body CT system includes a compact geometry premium gantry, table, Power Distribution Unit, high performance Xtream HD console with 2 high definition LCD's, customized keyboard, and graphical user interface design for efficient workflow with one technologist.</p> <p>Gantry: GE's compact gantry design and advanced 10G baud slip ring design continuously rotates the Performix HD tube, HD generator, Gemstone detector and Volara HD digital data acquisition around the patient. Exclusive VariSpeed allows short breath holds, more comfortable exams and the flexibility to customize protocols for unique patient needs.</p>

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	<ul style="list-style-type: none"> • Aperture: 70 cm • Rotational speeds: VariSpeed technology 360 degrees in 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0 Seconds • Integrated breathing lights & GE exclusive countdown timer • Integrated start scan button with countdown timer to indicate when x-ray will turn on • Tilt: +/- 30 degrees, speed: 1 degree/second • Remote tilt from operators console <p>Gemstone (TM) Detector: The GE proprietary Gemstone detector enables high definition CT. Ultimately the performance of every CT system begins with the detector, and Gemstone sets a new standard in scintillator primary speed, afterglow and performance supporting the next generation of high definition CT imaging applications such as single source spectral imaging. The proprietary Gemstone scintillator is the first new detector material developed in the past 20 years. The V-Res detector benefits are:</p> <ul style="list-style-type: none"> • 98% efficient at 120kvp • Fastest primary speed in the industry • Best after glow performance in the industry • Higher resolution with lower noise per image • 20 times less radiation damage of the scintillator when compared to competitive detector materials (Gadolinium Oxysulfide) • Isotropic ceramic with a cubic structure • Consistent Image Quality from the use of GE's exclusive patented detector material • Backlit diode technology provides 100% active area <p>Performix HD X-ray Tube: Performix HD metal-ceramic tube unit with its unique electrostatic cathode collimator design allows the focal spot to be dynamically positioned and customized to the clinical protocol and patient. The anode heat storage capability and wide range of technique</p> <p>(10 ma to 835 ma, in 5 ma increments) give the technologist and physician the flexibility to tailor protocols for even the most demanding acute care and cardiac exams without tube cooling.</p> <ul style="list-style-type: none"> • Heat storage capacity: 8.0 MHU • Maximum power: 100 kW (835mA) • Small focal spot power: 570mA at 120kv, standard resolution • Small focal spot power: 420mA at 120kv, high resolution

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	<ul style="list-style-type: none"> • Beam collimated to 56-degree fan angle • Heat dissipation: -Anode (Max)>2,100 KHU/min -Casing (cont) 648 KHU/min <p>HD High Voltage Generator: The HD Generator is capable of switching energy at very high speed to support Gemstone Spectral Imaging. High Frequency on-board generator allows for continuous high power demands required for acute care, cardiac and bariatric exams.</p> <ul style="list-style-type: none"> • 100 kW Output Power • kVp: 80, 100, 120, 140 • Energy Switching Speed: up to 0.5 msec • mA: 10 to 835, in 5 mA increments Maximum mA for each kVp selection: <ul style="list-style-type: none"> – kVp Max mA – 80 700 – 100 800 – 120 835 – 140 715 <p>Volara HD Digital DAS (Data Acquisition System): The Volara HD digital DAS is high-speed data acquisition system that dramatically improves image quality, especially spatial resolution, low dose exams, and artifact reduction.</p> <ul style="list-style-type: none"> • up to 2,496 views per rotation for improvement in spatial resolution and improved image quality across the entire 50cm field of view • 7,131Hz maximum sample rate • 58,368 available input channels • 23 bit dynamic range, 8,000,000 to 1 <p>Integrated Laser Alignment Lights:</p> <ul style="list-style-type: none"> • Defined internal and external scan planes to +1- 1 mm accuracy • Coronal light remains perpendicular to axial light as gantry tilts making visual readout easy from tableside or the operator console <p>Patient Table:</p> <ul style="list-style-type: none"> • Cantilever design for easy patient access, and stability • Vertical range: 43 cm to 99.1 cm, scannable: 78.5 cm to 99.1 cm • Horizontal range: 1700mm, (2000mm option) • Horizontal speed: up to 137.5 mm/sec • Table automatically re-centers on scan plane with changes in vertical position • Helical pitches: 0.5:1, 0.9:1, 1.375:1 • Table capacity: 227kg(500lb) +/- 0.25mm positional accuracy

Xtream(TM) HD Workflow: Xtream HD Workflow Platform built on the LINUX operating system for flexibility and security, the next evolution of GE's workflow and reconstruction architecture built to help you maximize productivity and lower dose with ASIR. The Split tabletop allows unrestricted patient viewing while supporting 2 - 19 inch color LCD monitors. Each work surface can be adjusted to accomodate a wide variety of operator preferences and site requirements.

Adaptive Statistical Iterative Recon (ASIR) provides the users with a new and innovative image reconstruction technology to reduce unwanted noise in diagnostic images, allowing users to improve image quality at up to 50% less dose.

Xtream HD Reconstruction breaks through existing limits on speed, image quality and flexibility to provide an optimized volumetric workflow solution from acquisition to final report.

- Delivers up to 35 full fidelity images per second (lips) reconstruction
- Up to 16 ips network transfer rates
- DMPR (Direct Multiplanar Reformates) enables prospective 3D review of sagittal, coronal and oblique planes automatically
- Exam Split delivers the capability to split a series of patient images into separate groups for networking
- Data Export and Interchange that allows you to easily share images with referring physicians and patients
- Complete set of clinically proven, low dose protocols and the ability to customize your own for a total of 8,460 programmable protocols. Xtream allows you to automate or build every task into protocols to increase throughput.
- Image decomposition to: -Retrospective thin images from data sets where thicker images were initially reconstructed -Facilitates more detailed image & analysis -Improves 3D and reformat visualization
- Neuro 3D Filters provide users the capability to filter angiographic data using a specially designed and optimized 3D filter. May be prospectively applied with Application Auto-Launch
- VariViewer is an interactive axial review mode that can change the slice thickness reconstruction instantaneously

Xtream HD Operator Console:

- HP Z800 computer with integrated reconstruction modules
- Image storage for approximately 460,000 512 images
- 4.7 GB DVD/CD-R for data interchange (not recommended as a long term archive)

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	<ul style="list-style-type: none"> • Scan data storage for approximately 3000GB • Volume Viewer 5.0 • AW Server Connection <p>Scan: Xstream HD workflow allows simultaneous scanning, image reconstruction, display, processing and analysis, as well as networking, archival and filming</p> <ul style="list-style-type: none"> • Anatomical programmer allows quick and easy access to user programmable protocols. These are separate selector for adult and pediatric protocols • Protocols include preset scan time, kVp, mA, scan mode, image thickness and spacing, table speed, scan FOV, display FOV and center, recon algorithm, networking destination, archiving and special processing options like Direct MPR • AutoVoice: 3 preset (English) and 17 user defined messages automatically deliver patient breathing instructions, especially useful for multiple helical scanning • Trauma Patient mode: Allows patient scans and image display/analysis without entering patient data before scanning • Reconstruction Algorithms: Soft Tissue, Standard, Detail, Bone, Bone Plus, Lung and Edge <p>OptiDose Features: OptiDose management features: bowtie filters optimized for coronary angiography and pediatric exams, 3D dose modulation, Color coding for kids tracking collimator hardware and software for x-ray beam tracking, ECG dose modulation, to name a few of GE's dose optimization features, all based on the ALARA principle.</p> <ul style="list-style-type: none"> • 3D Dose modulation. Before the scan, clinicians can select the desired Noise/IQ: CT then tailored automatically exposure parameters, patient to patient and real-time x-y-z during each scan, resulting optimization for the selected noise index. • Tracking collimator hardware and software for x-ray beam tracking to minimize patient dose • Filtration of the x-ray beam is optimized independently for body and head applications • DLP (dose length product) and dose efficiency display and reports during scan prescription provides patient dose information to the operator and can be saved with each exam • DICOM Dose report included with each exam • Dose Check provides the user with tools to help them manage CT dose in clinical practice and is based on the standard XR-25-2010 published by The Association of Electrical and Medical Imaging Equipment Manufacturers (NEMA). Dose Check

provides the following:

- Checking against a Notification Value if the estimated dose for the scan is above your site established value
- Checking against Alert Value where the user needs specific authority to continue the scan at

the current estimated dose without changing the scan parameters if the estimated dose exceeds the Alert Value

- The ability to define Alert Values for Adult and Pediatric with age threshold
- Audit logging and review capabilities
- Protocol Change Control capabilities

SMART Technologies: Allows for the Discovery CT750 HD Scanner to tailor the x-ray beam to the patient being scanned. In order to use the optimal amount of dose to achieve the desired image quality, it is important to know the patient attenuation. This information can be generated by the scanner utilizing the scout data, which is then leveraged by our family of SMART technology features:

- SmartmA and AutomA - 3D modulation of the tube current to help deliver the right dose at the right place
- GSI Assist - Helps users select the corresponding preset for a targeted CTDI for a comparable non-GSI AutomA scan
- kV Assist - Recommended tube voltage and current to achieve the lowest dose while meeting desired image quality

Volumetric Image Space Reconstruction (VISR) are 3D filters that reduce image noise (standard deviation) without compromising spatial resolution to provide clear visualization in neuro and cardiac imaging.

Dynamic Z-Axis Tracking provides automatic and continuous correction of the x-ray beam position to block unused x-ray at the beginning and end of a helical scan to reduce unnecessary radiation.

Image Networking: Exams can be selected and moved between the Discovery CT750 HD System and any imaging system supporting the DICOM 3.0 protocol for network send, receive and pull/query.

- Standard Auto-configuring Ethernet
- Direct Network Connection
- Supports 1GB or 10/100 BaseT
- Supported Protocols -DICOM 3.0 Network -Advantage Net -InSite Point-to-Point -TCP/IP (for System Administration)

DICOM Conformance:

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		<ul style="list-style-type: none"> DICOM 3.0 Storage Service Class Service Class User (SCU) for image send Service Class Provider (SCP) for receive DICOM 3.0 Query/Retrieve Service Class DICOM 3.0 MOD Media Service Class DICOM 3.0 Storage Commitment Class Push DICOM 3.0 Modality Worklist (Ind:Performed Procedure Step through ConnectPro option) DICOM 3.0 Print <p>InSite Broadband included: All hardware and software required to connect this CT system to GE's InSite On-Line Center via secure VPN high-speed internet connection. Enables customer to access services designed to: reduce downtime, improve quality, enhance performance, increase productivity, and expand imaging capabilities, and increased privacy and security of data transmissions.</p> <p>128i provides 128, 0.625mm images, per axial rotation allowing increased image-space sampling and enables improved visibility of small objects.</p> <p>Warranty: The published Company warranty in effect on the date of shipment shall apply. The Company reserves the right to make changes. All specifications are subject to change.</p> <p>Regulatory Compliance: This product is designed to comply with applicable standards under the Radiation Control for Health and Safety Act of 1968.</p> <p>Laser alignment devices contained within this product are appropriately labeled according to the requirements of the Center for Devices and Radiological Health.</p> <p>This product complies with the performance standards of 21 CFR, sub-chapter J, and the applicable IEC 60601-1 series.</p> <p>This product is a CE-compliant device that satisfies regulations regarding Electro-Magnetic Compatibility (EMC) and Electro-Magnetic Interference (EMI), pursuant to IEC-60601-1-2.</p> <p>Siting Considerations: See the Pre-Installation manual for details of the siting requirements for GE Discovery CT750 HD.</p>
2	1	<ul style="list-style-type: none"> Keyboard Operator and Technical Manual Labeling
3	1	Standard length cable set for CT750 HD

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4	1	<p>The CT system 2000 table enables volume scanning. Key features of the VT 2000 table include: 500 lb weight capacity, 2000 mm scannable range, 175 mm/sec travel time, real-time position control to support advanced application such as SnapShot Pulse, VolumeShuttle, and Volume Helical Shuttle.</p>
5	1	<p>Service cabinet for system accessories storage</p>
6	1	<p>3 Phase 14 KVA Partial UPS for Lightspeed VCT, Discovery ST - HP and Lightspeed Pro32.</p> <p>The 14KVA Partial UPS has been specifically designed to coordinate with GE Healthcare CT & PET/CT scanners. In the event of a power outage a partial system UPS provides continuous backup power to the scanner host and control computers, thus assuring no loss of usable scan data. In addition, critical circuits in the gantry and table remain powered which facilitate the safe removal of the patient from the scanner. If power is restored within the battery hold-up time, the operator can continue scanner operations without the need to reboot the system. When longer power outages are anticipated, the UPS provides time for the operators to safely remove the patient and complete an orderly shutdown of the system software.</p> <p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> • True double-conversion, online technology provides reliable operation & uninterrupted glitch free power • Automatic voltage and frequency selection eases startup, i.e., 50 or 60 Hz compatible • Integral Manual Bypass switch facilitates continued scanner operation while UPS is being serviced • Single input connection utilized for both UPS input and static switch • Maintains system electronics and allows critical scanner operations to continue for > 10 minutes (typical) after loss of power • Protects electronics from under voltage, brownouts, line sags, over voltage and transients • Advanced Battery Management (ABM) software monitors / indicates battery health and improves battery service life <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> • Dimensions (H x W x D): 49" x 12" x 32" • Weight: 620 lbs. • Rating: 14.4 kVA • Input Voltage Range: Three-Phase; 102-132V / ph

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7	1	<div data-bbox="537 176 1146 247"> <ul style="list-style-type: none"> Input Frequency Range: 45-65 Hz Output Frequency: 50 or 60 Hz, auto-sensing </div> <div data-bbox="518 266 701 294">COMPATIBILITY</div> <div data-bbox="537 325 1446 390"> <ul style="list-style-type: none"> CT LightSpeed Pro 32, Lightspeed VCT, CT 750HD, PET Discovery ST & ST-HP, PET Discovery VCT, PET Discovery 600/690 </div> <div data-bbox="518 415 610 443">NOTES:</div> <div data-bbox="537 470 1438 577"> <ul style="list-style-type: none"> Customer is responsible for rigging and arranging for installation with a certified electrician ITEM IS NON-RETURNABLE AND NON-REFUNDABLE </div> <div data-bbox="518 606 1135 634">CT Main Disconnect Panel - 125 Amp with Auto Restart</div> <div data-bbox="518 661 758 688">FEATURES/BENEFITS</div> <div data-bbox="537 718 1494 1215"> <ul style="list-style-type: none"> Custom panel serves as the main power disconnect between the CT system and the facility 400-480V power source Panel provides short circuit, overload, undervoltage release, automatic restart, and emergency shut down for the CT system Reduces installation time and cost by providing a single-point power connection eliminating the need to mount and wire a number of individual components Standardized design and testing assures high product quality and system reliability On systems where the optional 12.5 kVA partial system UPS is ordered, the Main Disconnect Panel also provides mandated emergency power off control via a UPS output disconnect function included in the panel design Provides a standardized platform for future UPS or other GE engineered modifications or upgrades </div> <div data-bbox="518 1234 712 1262">SPECIFICATIONS</div> <div data-bbox="537 1285 1299 1598"> <ul style="list-style-type: none"> Dimensions (H x W): 30.24 in. x 19.78 in. Enclosure Depth: 7.05 in. Handle Depth: 10.3 in. Weight: 110 lbs. UL, cUL and CE labeled Panel disconnect provides OSHA lockout/tagout provisions Surface or semi-flush mounting Partial system UPS sold separately (E4502F) </div>

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8	1	<p>COMPATIBILITY</p> <ul style="list-style-type: none"> CT LS Pro 16, LS Pro 32, RT Systems, LS VCT, CT 750HD, Discovery 690 VCT <p>NOTES:</p> <ul style="list-style-type: none"> Customer is responsible for rigging and arranging for installation with a certified electrician ITEM IS NON-RETURNABLE AND NON-REFUNDABLE <p>Slicker - CT HD750 and VCT w/GT 2000 Table (2 Piece Set)</p> <p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> Two-piece, sealed slicker cushion set has comfort pads enclosed inside the slicker cover and extender cover Durable, clear PVC plastic cover facilitates faster, more thorough cleanup of blood and fluids Increase system uptime by protecting table from spills and particulate contaminants Thermo-sealed seams and flaps prevent contaminate buildup in hard to clean areas <p>COMPATIBILITY</p> <ul style="list-style-type: none"> VCT with GT 2000 Table, CT HD750
		<p>Footswitch Slicker for CT HD750 and VCT Systems</p> <p>The footswitch slicker for CT VCT 2000 and 1700 systems is made of durable, clear PVC plastic that protects the footswitch and facilitates faster, more thorough cleanup of contamination caused by blood and other body fluids. Cover is held securely in place with Velcro...H</p>
10	2	<p>6 Day CT TiP Onsite System Training</p> <p>CT Onsite Training for a new CT system</p> <ul style="list-style-type: none"> One 4 day onsite visit to coincide with system start-up. One 2 day onsite follow-up visit 6-8 weeks post system start up. <p>During the first visit, the applications specialist will work with the medical and technical staff on system operation and patient procedures. The training produces the best results when a dedicated core group of 2-4 CT technologists complete the session with a modified patient schedule. It is suggested that key physicians are</p>

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	<p>available to participate in the protocol implementation and image quality review sessions. By the end of this visit, the core group should be able to perform the routine patient procedures.</p> <p>The 2 day revisit is suggested after the staff has run the system for 6-8 weeks, however this is flexible based on the site needs. The training will focus on the intermediate and advanced functions of the system or special needs of the customer. The training produces the best results when the same dedicated core group of 2-4 CT technologists from the initial visit complete the session with a modified patient schedule.</p> <p>This training program must be scheduled and completed within 12 months after the date of product delivery.</p>

Options

(These items are not included in the total quotation amount)

Item No.	Qty	Description
11	1	<p>The SnapShot Freeze motion correction package includes a comprehensive solution to correct for the problems of motion that may occur in cardiac imaging. The following items are included in the package:</p> <p>SnapShot* Freeze</p> <p>SnapShot*Freeze:An intelligent motion correction algorithm, which is designed to reduce blurring of coronary arteries due to motion artifacts. This is done by characterizing the vessels' motion path and velocity from adjacent cardiac phases on a vessel-by-vessel and segment-by segment basis. This information is then used to calculate the coronary artery vessel position at the target phase. Utilization of SnapShot Freeze in clinical practice may assist the physician's diagnostic interpretability of coronary CTA by reducing the burden of non-diagnostic segments.</p> <p>Using a mechanical heart phantom it was shown that SnapShot Freeze reduces motion artifacts up to 6X, equivalent to a 0.058s equivalent gantry rotation speed with effective temporal resolution of 29ms.</p> <p>SnapShot* Assist</p> <p>SnapShot* Assist: A guidance based tool that provides reference scan settings based on an individual's heart rate characteristics , rate variability and BMI(when parameters are entered) to guide the CT operator to help obtain optimal cardiac scan settings. SnapShot Assist uses the patient's recorded heart information to display scan parameters (including scan mode, cardiac phases, padding and pitch) that could be used during the cardiac CT scan. These recommended settings are based on over a decade of GE experience in cardiac CT and can be updated to serve as a department's best practices scan protocols. SnapShot Assist is designed to help users achieve consistent application of advanced cardiac scanning and reduce the complexity of creating diagnostic images.</p> <p>SnapShot Freeze & SnapShot assist require the cardiac imaging package with an ECG monitor and Package of Three (3) Single</p>

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	<p data-bbox="519 174 971 201">Floating License of CardIQ Xpress Reveal</p> <p data-bbox="519 222 1266 394">A Single Floating License provides one concurrent user license for an application that can be installed on AW Floating License manager at your facility. This license can be used by any AW in your facility that is "Concurrency Enabled" and is configured to use floating licenses.</p> <p data-bbox="519 417 630 445">Requires:</p> <ul data-bbox="539 464 1305 531" style="list-style-type: none"> • AW Floating License Manager to be installed at your facility • AW's "Concurrency Enabled" to access this floating license <p data-bbox="519 554 760 581">CardIQ Xpress Reveal</p> <p data-bbox="519 619 1256 863">CardIQ Xpress Reveal is an integrated post processing image analysis software dedicated to the application of cardiovascular imaging on GE's Advantage Workstation. The CardIQ Xpress Reveal software option can be used to effectively display, reformat and analyze 2D or 3D cardiac CT images for qualitative or quantitative assessment of the heart anatomy and coronary artery vessels from single or multiple cardiac phase image data sets.</p> <p data-bbox="519 886 1211 984">CardIQ Xpress Reveal is launched via its own link or from Volume Viewer applications. It provides the use with both single and multiple cardiac phase analysis protocols.</p> <p data-bbox="519 1008 1273 1289">The operator has a variety of different 2D, 3D or reformatted protocols to choose from to perform analysis and measurements. They include: display of the coronary vessel tree, angiographic view, 2D and 3D rendering of single or multiple coronary artery vessels or grafts, automatic reformation of cross sectional cardiac images into planes along short or long axis of the heart, one-touch cath views for 3D or reformatted images, 3D angiographic view phase registration, plaque density measurements and</p> <p data-bbox="519 1312 1252 1446">color mapping of the non-calcified and calcified plaque, IVUS-like views, 3D ejection fraction, 4D aortic and mitral valve views, relative perfusion, transparency views and beating heart images from single or multiple cardiac phase image data sets.</p> <p data-bbox="519 1470 1273 1604">The CardIQ Xpress Reveal tool can be applied to standard axial or helical CT images. These images can be acquired on GE's multi-slice CT scanners using the cardiac CT SnapShot Pulse, Segment, Burst or Burst Plus imaging acquisition options.</p>

Clinical Benefits: Cardiovascular CT imaging using multislice CT technology is an exciting clinical application that provides clinically relevant and significant information for cardiovascular disease management as a non-invasive imaging technique. Multislice CT, which has been quickly adopted by the clinical community, has the advantage of being clinically powerful, reliable and accessible, as compared to other invasive or non-invasive cardiac imaging techniques. One of the critical components for an effective cardiac CT application is a fully integrated post processing and analysis tool tailored for cardiac imaging. The CardIQ Xpress Reveal option is designed to provide a user centered-and time effective means for cardiovascular image manipulation. Clinical applications include: imaging of cardiac morphology, coronary artery imaging and assessment of relative perfusion, assessment of plaque, bypass graft potency, post intervention follow-up and functional assessment

CardIQ Xpress Reveal simplifies user workflow by:

- Pre-processing the images & models for quick review of the exam
- Loading images into the auto launch area area for real-time review of multiple exams
- Easy switching from one protocol to the other without exiting the application
- Single click one-touch cath views
- Batch movie output within cardiac reformat
- User defined layouts within vessel analysis for simplified viewing and filming
- Multi-phase load to single phase review

The CardIQ Xpress reveal option includes:

- 2D/3D coronary vascular tree images with automatic vessel tracking & labeling with single click of a protocol. Images can be reviewed in axial, reformat, curved, oblique MPVR, and cross section views
- Various measurements of coronary arteries to include stenosis density and length of stenotic area
- PlaqID to color code non-calcified and calcified plaque with volume measurements.

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	<ul style="list-style-type: none"> • 2D reformat review with predefined views to review all coronary vessels. • Color enhanced relative perfusion defect pattern recognition for detection of ischemic heart disease with 4 color patterns • Automatically render data for streamlined reading to include: 3D rendered heart, angiographic view, tree VR, and ejection fraction. • Reformat standard axial CT images of single or multiple cardiac phases automatically into short, long and two chamber long axis of the heart for easy review • Perform functional evaluation of the heart and cine capabilities for multiphase beating heart images with one easy click • Automatic extraction of the left ventricle with automatic selection of ES and ED for ejection fraction & volume measurements • 4D aortic valve and mitral valve views with one touch • Select protocols within the review step area allowing user to select a different protocol without exiting the application • Pre-defined VR IVUS-like views for virtually determining the different compositions of plaque • One touch angiographic view protocol display coronary vessel tree and myocardium with automatic removal of heart chambers for cath comparative view • Heart transparency model allowing for full visualization of coronaries in relation to the heart chambers with the ability to fade out the chambers of the heart • Oblique reformat views in the standard cath angles to provide an analysis of the coronary vessels • Load multi-phase images, review the data and decide which phase or phases will be reviewed for further processing by dropping the non-essential phases • Phase registration - ability to register images from different cardiac phases into a unique data set. The data set can then be saved as a 3D object and/or used for further analysis <p>AW Server 16,000 Images Data Center Installation</p> <p>The AW Server delivers distributed 3D Visualization capabilities</p>

throughout the Enterprise and at any remote reading location. It utilizes advanced thin client technology to convert virtually any PC to a high-end 3D post processing station. In addition to this, the AW server also serves as a workflow engine enabling optimal collaboration among physicians and allowing 3D visualization to be leveraged easily to facilitate diagnosis decision-making. The AW Server also enables faster turnaround of post-processed results to referring physicians by allowing them to access the data instantly, while maintaining security and privacy of patient data.

The following capabilities are included:

- Unlimited number of clients, up to 16,000 concurrent slices (512x512) can be loaded across all users of the server. (Note: advanced applications require purchasable concurrent licenses).
- Two concurrent instances of GSI Viewer supported. (Note: requires optional optional license purchase).
- Accessories for mounting hardware in your data center rack. Please refer to AW Server site requirements document for details on rack space needed.

Key features:

- Access to 3D visualization capabilities including MIP/MPR/VR, segmentation, fly-throughs and PET/CT from any number of client PC's by simply downloading a client application from the server's web interface.
- Unique "Smart Compression" technology automatically displays full fidelity static images even when compression is turned on for increased interactivity. This allows for diagnostic reads on full fidelity static images even at low bandwidth. On-image visual indicators notify user when compression is in effect.
- Intuitive work list interface with custom work lists, easy access to priors and exam states.
- Programmable ability to automatically push saved results to one or more DICOM hosts such as PACS when closing a session.
- Optional pre-processing capability to to automatically process exams in background based on preset rules,

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	<p>minimizing wait time and keeping exams ready to read.</p> <ul style="list-style-type: none"> • Ability to open up to 3 simultaneous application sessions per user and instantly switch between these sessions. • Ability to save the state of post processing any time and restore it from any client, allowing multiple radiologists or technologists to contribute to post processing results. • Ability to float application licenses among AW workstation (requires VolumeShare2 or later), server and Centricity AW Suite. • Enterprise directory integration for single sign-on user authentication with audit trails. • Support for seamless integration with GE Centricity PACS. (Requires appropriate Centricity PACS software to be installed and integration license for AW Server. Centricity PACS-IW and AW Server integration is currently not validated. Centricity RIS-IC and AW Server integration is currently not validated). This integration allows for launching AW applications directly from the Centricity PACS RA1000 work list and also features exclusive ability to integrate AW Server and PACS short term storage, hence avoiding the need to duplicate exam data on two (2) different databases. • Open API's that support any RIS/PACS work list to integrate with the AW Server and launch AW applications directly from the PACS Interface. (Requires RIS/PACS vendor to use AW Server open API's and provide appropriate interface to launch AW applications. For more details please refer to AW Server integration manual) <p>Performance and intended uses:</p> <p>Performance and interactivity on client PC's depends on the network bandwidth, latency and client PC configuration. To attain optimal performance, minimum bandwidth required is 40Mbps (LAN) with a latency of 20ms or lower. The server may be used over WAN/Internet as well although performance will heavily depend on round trip latency between client PC and server.</p> <p>The server supports various compression levels selectable by user. The innovative "Smart Compression" technology applies selected compression level only when user is interacting with the images to optimize performance. The images are automatically displayed at</p>

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	<p>full fidelity once interaction stops. Clear visual indication on the images indicates when compression is being applied to the images. A minimum of 3Mbps bandwidth per client with latency less than 35ms is recommended for reasonable performance when compression is used.</p> <p>Specifications:</p> <p>AW Server software is packaged as a turnkey solution that includes off-the-shelf enterprise class hardware for optimal performance.</p> <p>Server Hardware and O/S:</p> <ul style="list-style-type: none"> • 4X Six core Intel Xeon X7542 CPU • 64GB RAM • 2-1 Gbps NIC for DICOM and client traffic • Dedicated Embedded Lights Out Manager (LOM) • Fully redundant power and cooling • Novell SUSE Enterprise 11 64-bit Linux. A minimum of 3Mbps bandwidth per client with latency less than 34ms is recommended for reasonable performance when compression is used. • 4U form factor (including DAS and UPS) • 6TB of usable direct attached image storage with 2U form factor • Raid 10 (striped and mirrored) to maximize data integrity, redundancy and performance <p>Client requirements:</p> <p>Note: It is the customer's responsibility to ensure that every client PC meets these minimum specifications for optimal performance.</p> <p>Hardware:</p> <ul style="list-style-type: none"> • Processor 2.2 GHz Pentium 4 minimum Dual core processors recommended • Memory 1024 MB minimum • Disk drive 250MB free space available • Screen resolution 1024H x 768V minimum with full color (32 bit) (1280H x 1024V or 1600H x 1200V recommended) • Network card 100 Mbps minimum (1000 Mbps recommended) • Internet connection. Customer provided IPSEC VPN, for

Item No. Qty	Description
	<p>internet/WAN operation</p> <ul style="list-style-type: none"> Mouse: Two or three-button mouse. Three button mouse suggested for best use of functions <p>Software:</p> <ul style="list-style-type: none"> Operating system Windows XP 32 bit, Windows Vista SP1 32 bit, Windows 7 32 bit, Windows XP SP3 32 bit, Windows Vista SP2 32 bit, Windows 7 SP1 32 bit, Windows XP SP2 64 bit, Windows 7 SP1 64 bit, AW 4.4 (CTT 5.2.10), AW4.6 (SLED11), CT Console (CTT OS 6.3.10), CT Console RT Innovation (CTT 6.3.11), CT Console Cj2.0 (SLES11 SP1), Mac Parallels (Mac OS x 10.6, Parallels 6.0, Win XP Pro SP3 32bit/Win 7 SP1 32 bit. Browser Mozilla 1.7.x (or later), Internet Explorer 6.0.x, 7.0.x, Firefox 3.0.x, 3.5.x web browsers. Browser security settings JavaScript enabled. <p>Installation includes:</p> <ul style="list-style-type: none"> Site readiness survey Integration of server hardware into IT infrastructure Installation of Enterprise OS Installation of GE Healthcare applications software Configuration of active directory (if required) Configuration of up to 5 DICOM hosts provided prior to installation Installation of one client for purposes of server testing and applications training <p>Service contract and applications training are optionally purchasable. Warranty information can be found in terms and conditions.</p> <p>Concurrent licenses for supported advanced applications are optionally purchasable.</p> <p>AW Server 2 Pre-Processing</p> <p>This option enables integrated pre-processing to automate processing tasks in the background, thus increasing productivity. Tasks such as bone removal, segmentation of cardiac structures, colon, etc. are performed automatically upon DICOM exam transfers to AW Server based on rules. The rules can be configured</p>

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12	1	<p data-bbox="526 174 1279 380">based on DICOM series description field using the administrator panel for AW Server. The results of pre-processing are saved as a series under the exam and are automatically loaded when the exam is launched by the user with the appropriate post processing protocol, hence minimizing loading time. For more information on configuring the pre-processing, please refer to the operator manual.</p> <p data-bbox="526 390 1268 846">The GSI Cardiac option allows for Spectral Spectral Imaging in prospective cardiac gating modes. The ability to alternate two kV energies at 0.25msec leads to unprecedented temporal registration (over 140 times faster than other dual energy technology) important for Cardiac imaging. GSI processing separates the interleaved raw datasets and using a pair of material attenuation characteristics, decomposes the raw data into a pair of material density images. The material decomposition is achieved by a high order polynomial fit between the two acquired energies subject to the constraints of the known material attenuation characteristics. These material decomposed images together with the material attenuation characteristics enable synthesis of monochromatic spectral energy images ranging from 40 to 140 key.</p> <p data-bbox="526 867 1243 1003">The ability to generate material density data that can be used for the separation of materials and derivation of monochromatic spectral images enables the following capability for cardiac scanning.</p> <ul data-bbox="540 1041 1294 1539" style="list-style-type: none"> • GSI Cardiac allows for enhanced visual assessment of coronary vessels due to its ability to separate materials like iodine and calcium, and to display data at different energy levels • GSI Cardiac helps reduce attenuation artifacts caused by beam-hardening, which improves CT number accuracy • Enhanced accuracy of coronary vessel diameter assessment(1) • Potential to reduce Beam Hardening artifacts may improve the accuracy of perfusion assessments when Beam Hardening is a concern • Information to assist with plaque material composition assessments via the HU Spectral curves <p data-bbox="526 1560 1255 1587">(1) - As measured in a phantom using iodinated contrast material</p>

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	<p>and hydroxyapatite</p> <p>GSI Cardiac is available on the Discovery CT750 HD and requires Gemstone Spectral Imaging and Cardiac Imaging options with an ECG Monitor.</p> <p>Package of Three (3) Single Floating Licenses of GSI Viewer 3D</p> <p>GSI Viewer 3D single floating license provides 3 concurrent user licenses for GSI Viewer 3D application that can be installed on AW Floating License Manager at your facility. This license can be used by any AW in your facility that is "Concurrency Enabled" and is configured to use floating licenses.</p> <p>Requires:</p> <ul style="list-style-type: none"> • AW Floating License Manager to be installed at your facility • At least one prior purchase of GSI Viewer Floating License or conversion of an existing node locked license to Floating License • AW's "Concurrency Enabled" to access this floating license <p>The GSI Viewer 3D is the application tool for viewing and manipulating spectral images acquired with GE's Gemstone Spectral Imaging capability on Discovery CT750 HD. GSI Viewer 3D is fully integrated into the Volume Viewer for stream-lined workflow. Special integration in VessellQ Xpress* and CardIQ Xpress 2.0 Reveal** provides additional analysis tools for use with GSI.</p> <p>Key features include:</p> <ul style="list-style-type: none"> • Protocol Driven Design - This feature provides a standard set of reference protocols with the additional ability for users to create and save their own protocols • Monochromatic Image Review - With this feature the user has the ability to interactively change the monochromatic energy levels so that the user can select the best energy level for the exam being reviewed • Image Overlay - The viewer provides a simple way for the user to move from review to analysis by overlaying material density, and effective atomic number (effective-Z) information on top of the monochromatic images • Material Density Analysis - Users can visually see how the GSI data is segregated amongst a material density pair, e.g. water

Item No.	Qty	Description
13	1	<p>and iodine</p> <ul style="list-style-type: none"> • Plot Analysis - This feature displays ROI's as graphical plots in the form of a histogram, a scatter plot, spectral HU curve and an optimal CNR (contrast to noise) plot • Leverage routine Volume Viewer capabilities of volume rendering and segmentation for improved visualization of spectral information • Save preferred GSI settings to create user defined protocols for automated workflow • Display monochromatic energies and material separated images fully integrated into CardIQ Xpress Reveal** <p>Benefits are:</p> <ul style="list-style-type: none"> • Material Decomposed images allow for the separation of materials like calcium, iodine, and water • Visualize a virtual non-contrast like image using water-iodine basis pair image • Adjusting monochromatic energy levels can optimize image contrast and reduce beam-hardening artifacts • Aid in the discrimination of different tissue types based on material density and monochromatic image data. <p>* Requires VessellQ Xpress License</p> <p>** Requires CardIQ Xpress 2.0 Reveal License</p> <p>The Low Dose 5-Beat Cardiac package allows the user to acquire cardiac imaging exams with retrospective or prospective gated acquisitions utilizing up to 0.35 second rotation speed for excellent cardiac exams. This package contains the following items necessary for CT Coronary Angiography:</p> <p>SnapShot Imaging can be used to acquire ECG Gated CT Images of the coronary arteries, cardiac anatomy and various other applications that require temporal resolution to reduce heart motion effects. The SnapShot Imaging package includes hardware and software necessary for cardiac studies with CT.</p> <p>SnapShot imaging is designed to produce optimized cardiac images with minimum cardiac motion effects. Three different imaging acquisition techniques are available for the user,</p>

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175ms

Description SnapShot segment - single sector algorithm with temporal resolution (TR) of

- SnapShot Burst - dual sector algorithm with TR of 87ms
- SnapShot Burst Plus - 4 sector algorithm with TR of 43ms

Console ECG Trace

- The ECG trace provided by the IVY Monitor will be displayed on the CT operators console with this option. Allowing the display of the live trace of the patient's heart rate and and display the actual location of the window of time when the images are being acquired. It will provide easy access to patient cardiac output status and assist in providing visual feedback for optimum acquisition start.

ECG Editor:

- The ECG Editor allows the user to retrospectively modify trigger points identifying R-peaks on ECG trace as displayed on the console. The capability may improve successful cardiac acquisition rate by enabling users to perform the modification in the cases with irregular heartbeat or suboptimal triggers.

Cardiac Enhancement Filters:

- Noise reduction filters, providing three levels of image filtration while preserving of edge image detail coupled with patient dose reduction of up to 30%.

ECG Dose Modulation:

- ECG gated dose modulation reduces patient dose by modulating x-ray technique during acquisition based on heart phase.

SnapShot Pulse is a cardiac scanning technique that reduces patient dose up to 83%, and improves cardiac workflow, with uncompromised image quality. SnapShot Pulse uses prospectively triggered axial acquisitions synchronized by the patient heart rate, in which X-rays are turned on only during the required heart phase and turned off completely at all other times. In essence, the technique captures a complete picture of the heart using a series of three to four snap shots taken at precise patient table positions and precisely timed to correspond to (relative to conventional cardiac CT acquisitions).

Item No.	Qty	Description
14	1	<p data-bbox="519 176 1247 422">SnapShot Pulse helps improve workflow by reducing the size of image set to be reconstructed, reviewed and post processed. A typical SnapShot Pulse series consists of 280 400 images, compared with up to 3,000 images in a typical helical cardiac scan series. Since there's a smaller number of images to reconstruct, SnapShot Pulse takes less time, yet still delivers the same amount of information as a helical cardiac exam.</p> <p data-bbox="519 449 1221 514">SnapShot Assist helps users Optimize ECG-gated CT Acquisitions based on patient heart rate characteristics.</p> <p data-bbox="519 537 1253 638">The Ivy Monitor comes in the cardiac package. It will be used to monitor patient cardiac output and synchronize acquisition with that output.</p> <p data-bbox="519 644 1273 777">Volume Helical Shuttle is a continuous scan technique that is a bi-direction scan mode, offering 312.5mm (equivalent to 500 x 0.625mm slices of volume) of high-resolution volume coverage for a 4D organ and vascular assessment.</p> <p data-bbox="519 798 1273 898">In addition, Volume Helical Shuttle allows you to perform perfusion studies for the head and body (coverage up to 120mm for head and up to 140mm for body).</p> <p data-bbox="519 917 1284 1018">GE's exclusive real-time scan control, system architecture, and fast smooth table acceleration and deceleration enable the patient to be effortlessly and comfortably shuttled back and forth.</p> <p data-bbox="519 1035 1252 1100">The GE CT systems are uniquely designed to make it all possible - as a result of these key scanner attributes:</p> <ul data-bbox="537 1119 1263 1220" style="list-style-type: none"> • The 40-mm V-res detector with micro voxel technology. • Real-time system controls to precisely control table movement and X-ray. <p data-bbox="519 1241 1256 1268">This Volume Helical Shuttle package also includes VolumeShuttle.</p> <p data-bbox="519 1289 1235 1390">VolumeShuttle innovatively provides the 80mm of coverage necessary for accurate dynamic neuro angiographic and perfusion studies with a single contrast injection.</p> <p data-bbox="519 1409 1235 1541">VolumeShuttle works by axially scanning in one location and then moving the patient to an adjacent position in @1 second. Another axial acquisition is performed, followed by a shuttle back to the previous position. This cycle continues for the duration of the</p>

Item No.	Qty	Description
15	1	<p data-bbox="521 174 1127 237">exam...up to 40 seconds. Each cycle of two acquisitions is approximately 3 seconds.</p> <p data-bbox="521 260 1268 430">VolumeShuttle provides the wider coverage margin needed to allow for patient variability in the Circle of Willis (80mm) and fromn the basal ganglia to lateral ventricles (>60mm) - all with the existing 40-mm-wide detector and without the multiple contrast injections necessary with today's standard CT systems.</p> <p data-bbox="521 453 1292 552">Volume Helical Shuttle is licensed for use with a GE X-ray tube. Use of a third party x-ray tube will require the purchase of an additional license for this feature.</p> <p data-bbox="521 564 1284 947">Gemstone Spectral Imaging is an innovative dual energy scan mode that uses two nearly simultaneous scans at two different energy levels to generate material characterization information. The LightSpeed CT750 HD Performix HD tube and HD generator are capable of switching energy at very high speeds. By acquiring this multiple energy scan data, patient data with different attenuation values corresponding to the energy levels is generated. These scan data are utilized to help identify material-specific defferences in attenuation in terms of Water & Iodine, Water & Calcium, and Iodine St Calcium basis-pair images, allowing mono-chromatic image representations via the Gemstone Spectral Imaging viewer.</p> <p data-bbox="521 972 1284 1541">Gemstone Spectral Imaging option enables the LightSpeed CT750 HD system to switch the kV from high to low at a very fast switching rate of up to 4.8kHz and utilizes the fast response of the GE Gemstone Detector to capture the spectral imaging data sets that are registered to within micro-seconds. This fast switching reduces the registration artifacts generated by some dual energy methods. Gemstone Spectral Imaging has the following image quality benefits and capabilities: o registers energies more than 165 times faster than a dual source CT system at 0.35 second rotation speed. o generates derived images over a 50cm SFOV for the seperation of materials such as calcium, iodine and water. o provides derived monochromatic spectral images at 101 user selectable energy levels for image contrast optimization. o reduces beam hardening artifacts due to bone, metal, and other high contrast material (example: iodine) up to 50% o can detect iodine concentrations as low as 0.5% in density</p> <p data-bbox="521 1564 1276 1591">The LightSpeed CT750 HD system with Gemstone Spectral Imaging</p>

Item No.	Qty	Description
16	1	<p>can acquire CT images using kV levels of the same anatomical region of a patient in a single rotation from a single source. The differences in the energy dependence of the attenuation coefficient of the different materials provide information about the chemical composition of body materials. This approach enables images to be generated at energies selected from the available spectrum to visualize and analyze information about anatomical and pathological structures.</p> <p>CT Perfusion 4D Multi-organ Package is an image analysis software package that allows the the evaluation of dynamic CT data following an injection of a compact bolus of contrast material, generating information with regards to changes in image intensity over time. The software provides a quick and reliable assessment of the type and extent of cerebral perfusion disturbances by providing qualitative and quantitative information on various perfusion related parameters, which may be related to acute stroke, brain tumor angiogenesis and treatment thereof. The key perfusion parameters that CT Perfusion 4D Neuro Multi-organs Package generates are:</p> <ul style="list-style-type: none"> • Regional Blood Volume (BV; ml/100g) • Regional Blood Flow (BF; ml/min/100g) • Regional Mean Transit Time (rMTT;s) • Capillary Permeability Surface Area Product (PS) • Time of Arrival (IRF TO) • Transit Time to IRF Peak (Tmax;sec) <p>Perfusion 4D also includes a new feature, Tissue Classification Index, which provides a thresholding algorithm that may aid the clinician in determining the status of the tissue based on blood volume and blood flow maps, where the first six hours after onset of symptoms are critical in identifying the occurrence of stroke and follow-up treatment.</p> <p>Productivity is enhanced through the protocol driven design of the user interface. An example of this is the Brain Stroke Protocol (Automatic) that completes the processing with one touch reducing the time required to process the exam and to enhance repeatability.</p> <p>Protocols are also provided for:</p> <ul style="list-style-type: none"> • Brain Tumor

Item No.	Description
17	1
	<ul style="list-style-type: none"> • Body Tumor • Liver, Pancreas, Prostate, Kidney, Soft Tissue, Spleen and Bone. <p>System Requirements: VolumeViewer on the Console - B7870JA</p> <p>CardIQ Xpress Reveal is an integrated post processing image analysis software dedicated for the application of cardiovascular imaging on the Console.</p> <p>The CardIQ Xpress Reveal software option can be used to effectively display, reformat and analyze 2D or 3D cardiac CT images for qualitative or quantitative assessment of heart anatomy and coronary artery vessels from single or multiple cardiac phase image data sets.</p> <p>CardIQ Xpress Reveal is launched via its own link or from Volume Viewer applications. It provides the user with both single and multiple cardiac phase analysis protocols. The operator has a variety of different 2D, 3D or reformatted protocols to choose from to perform analysis and measurements. They include: display of coronary vessel tree, angiographic view, 2D and 3D rendering of single or multiple coronary artery vessels or grafts, automatic reformation of cross sectional cardiac images into planes along short or long axis of the heart, one-touch cath views for 3D or reformatted images, 3D angiographic view phase registration, plaque density measurements and color mapping of the non-calcified & calcified plaque, IVUS-like views, 3D ejection fraction, 4D aortic and Mitral valve views, relative perfusion, transparency views and beating heart images from single or multiple cardiac phase image data sets. The CardIQ Xpress Reveal tool can be applied to standard axial or helical CT images. These images can be acquired on GE's multi-slice CT scanners using the cardiac CT SnapShot Pulse, Segment, Burst or Burst Plus imaging acquisition option.</p> <p>Clinical Benefits: Cardiovascular CT imaging using multi-slice CT technology is a new and exciting clinical application which may make significant impacts to cardiovascular disease management as a non-invasive imaging technique. Multi-slice detector CT, which has been quickly adopted by the clinical community, has the advantage of being easy-to-use, reliable and accessible, as</p>

Item No.	Description
	<p>compared to other invasive or non-invasive cardiac imaging techniques. One of the critical components for an effective cardiac CT application is a fully integrated post processing and analysis tool tailored for cardiac imaging. The CardIQ Xpress Reveal option is designed to provide an easy-to-use and time effective means for cardiovascular image manipulation. Clinical applications include: imaging of cardiac morphology, coronary artery imaging and assessment of relative perfusion, assessment of plaque, bypass graft potency, post intervention follow-up and functional assessment.</p> <p>CardIQ Xpress Reveal simplifies user workflow by:</p> <ul style="list-style-type: none"> • Pre-processing the images & models for quick review of the exam • Loading images into the auto launch area for real-time review of multiple exams • Stream-lining protocol selection • Easy switching from one protocol to the other without exiting the application • Single click one-touch cath views • Batch movie output within cardiac reformat • User defined layouts within vessel analysis for simplified viewing and filming • Multi-phase load to single phase review <p>The CardIQ Xpress reveal option allows the user to:</p> <ul style="list-style-type: none"> • Extract, render and display 2D/3D coronary vascular tree images with automatic vessel tracking & labeling with single click of a protocol. Images can be reviewed in axial, reformat, curved, oblique MPVR, and cross section views. • Various measurements of coronary artery vessels to include stenosis, density and length of stenotic area. • PlaqID to color code non-calcified and calcified plaque with volume measurements. • 2D reformat review with predefined views to review all coronary vessels. • Color enhanced relative perfusion defect pattern recognition for detection of ischemic heart disease with 4 color patterns • Automatically render data for streamlined reading to include: 30/31

Item No. Qty	Description
	<p>3D rendered heart, angiographic view, tree VR, and ejection fraction.</p> <ul style="list-style-type: none"> • Reformat standard axial CT images of single or multiple cardiac phases automatically into short, long and two chamber long axis of the heart for easy review. • Perform functional evaluation of the heart and cine capabilities for multiphase beating heart images with one easy click • Automatic extraction of the left ventricle with automatic selection of ES and ED for ejection fraction & volume measurements. • 4D aortic valve and mitral valve views with one touch • Select protocols within the review step area allowing user to select a different protocol without exiting the application. • Pre-defined VR IVUS-like views for virtually determining the different compositions of the plaque • One touch angiographic view protocol display coronary vessel tree and myocardium with automatic removal of heart chambers for cath comparative view. • Heart transparency model allowing for full visualization of coronaries in relations to the heart chambers with the ability to fade out the chambers of the heart. • Oblique reformat views in the standard cath angles to provide an easy analysis of the coronary vessels. • Load multi-phase images, review the data and decide which phase or phases will be reviewed for further processing by dropping the non-essential phases. • Phase registration - ability to register images from different cardiac phases into a unique data set. The data set can then be saved as a 3D object and/or used for further analysis. <p>System Requirements: VolumeViewer on OC - B7870JA</p> <p>(</p>