

## Revolution HD EX System

### A better exam with superb clarity

High definition image quality requires innovation throughout the image chain. With technologies and features that have set new benchmarks for image clarity, Revolution(TM) HD enables diagnostic confidence for a wide range of clinical applications. Spatial and temporal resolution, signal-to-noise ratio, low-contrast detectability and artifact reduction are all fundamental to CT image quality. Revolution HD offers a true diagnostic breakthrough with best-in-class spatial resolution of 0.23 mm across the full scan length (Calculated using 0% MTF).

### Low dose made possible by iterative reconstruction

Typically, lowering dose has increased noise and image artifacts, creating a difficult balance between higher image quality and lower dose. To help you overcome these challenges and keep you on the cutting edge, Revolution HD offers three advanced iterative reconstruction technologies, ASiR(TM) (standard), ASiR-V (optional) and Veo(TNM) (optional). In clinical practice, the use of ASiR, ASiR-V and Veo 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.

### Best-in-class cardiac CT

Revolution HD has best-in-class cardiac CT spatial resolution. At 18.2 lp/cm(1), the system provides up to 66% greater spatial resolution than comparable systems. Additionally, SnapShot(TM) Freeze is designed to reduce blurring artifacts due to motion in coronary vessels that cannot be addressed by gantry speed alone. Providing up to 6x improvement while maintaining high spatial resolution, the reduction in motion artifacts is equivalent to a 0.058s equivalent gantry rotation speed with effective temporal resolution of 29 msec as demonstrated in cardiac phantom testing.

(1) Based upon internal test data comparing Discovery(TM) CT750 HD cardiac half-scan spatial resolution to data from "Advanced CT Scanners for Coronary Angiography", ImPACT Report CEP10043, March, 2010, available at [www.impactscan.org](http://www.impactscan.org)

### Focus less on the system and more on your patients

The Xstream display prominently shows the patient name, making exams more personal. It also includes a number of educational videos that explain CT procedures

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			<p>or can be used as a distraction technique for younger patients. In addition, with one-stop ED mode, you can select and confirm patient, protocol and scan settings at the gantry.</p> <p>Helping you lead the way in delivering high quality care at ultra-low dose with Smart Technologies</p> <p>Better patient care, improved efficiency, expanded applications. Smart Technologies is a suite of intelligent CT tools designed to help you achieve these goals, delivering diagnostic confidence with lower levels of radiation. Revolution HD is MITA XR-29-2013 compliant.</p> <p>Volume Shuttle is also included with this configuration. Volume Shuttle doubles Z-coverage to 80mm (128 slice width) for neuro perfusion studies including angiographic information. Real-time scan and table control enable imaging of two adjacent axial 40mm positions with minimal transition interscan delay (ISD).</p> <p>The Revolution HD gantry design includes the Xstream display and provides a number of workflow enhancements for you, such as Prospective Exam Split, and helps you to focus less on the system and more on your patients.</p> <p>Revolution HD Technology</p> <p>Gemstone (TM) Detector: This key technological advancement enables improvements in spatial resolution, low contrast detectability, and the foundation for spectral imaging.</p> <ul style="list-style-type: none"> <li>o 98% efficient at 120kV</li> <li>o Fastest primary speed in the industry by 100x</li> <li>o 4x faster afterglow performance</li> <li>o 0.23mm spatial resolution across the 2 meter s</li> <li>o Backlit diode technology</li> </ul> <p>Smart Technologies:</p> <ul style="list-style-type: none"> <li>o Smart Dose - Iterative reconstruction technology: ASiR is standard on Revolution HD. ASiR-V and Veo are optional purchases.</li> <li>- Scout based technologies: Allows for the Revolution HD scanner to tailor the x-ray beam to the patient being scanned by utilizing the patient attenuation scout data.</li> <li>o kV Assist: Recommends tube voltage and current to achieve the low dose while meeting desired image quality.</li> <li>- Auto mA / Smart mA(TM): 3D modulation of the tube current to deliver the right dose at the right place.</li> <li>- Dose Reporting - provides access to the CTDIvol and DLP with the patient record prior and post exam. DICOM Structured Dose Report is also supported.</li> <li>- Dose Check - provides prospective dose alerts and warnings if pre-determined dose levels will be exceeded.</li> <li>- CT 4Kids - Dose-optimized, procedure based protocols for pediatric imaging provide more options for ensuring balanced radiation dose and image quality for specific pediatric applications.</li> </ul> <p>Low dose lung screening option protocols included.</p>

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			<p>University of Wisconsin-Madison School of Medicine and Public Health dose-optimized protocols- Developing, optimizing and managing protocols can be a time-consuming and expensive task- which is why we've looked to the clinical professionals at the University of Wisconsin Madison School of Medicine and Public Health for protocols optimized for GE CT systems. There are over 150 size-specific protocols, verified and validated using rigorous ISO-9000 style processes and procedures.</p> <p>o Smart Flow - Xstream Display: A multi-purpose LCD display on the gantry that provides the following functionality.</p> <ul style="list-style-type: none"> <li>o Basic patient information on the gantry allowing the user to confirm patient information in the scan room, improving workflow.</li> <li>o Default Patient Positioning provides target reference points at table side allowing streamlined patient positioning for the user.</li> <li>o Movie function to assist the user in explaining the examination to patients.</li> <li>o One Stop Scanning Mode: Provides a streamlined workflow such as patient selection, protocol selection and confirm. Pre-scanning can be accomplished in as few as five touches.</li> <li>- Emergency patient mode is a dedicated user interface for emergency cases to start the examination quickly. Patient Name/Patient ID are assigned automatically and once a protocol is selected, the scan setup interface displays.</li> <li>- Dynamic Transition - allows the scan phase to start automatically when the HU of the transition ROI reaches the desired enhancement threshold.</li> <li>- AWE Connect: For facilities that have a GE AW server, this provides direct access to AW server post-processing software.</li> </ul> <p>o Smart Cardiac - SnapShot(TM) Assist package: Designed to enable successful cardiac acquisitions the first time.</p> <ul style="list-style-type: none"> <li>- SnapShot(TM) Freeze: Helps significantly reduce coronary motion, transcending the limits of a hardware only system.</li> <li>- SnapShot(TM) Pulse: Provides prospective gating of the coronary arteries and structures that are near the heart.</li> </ul> <p>Gantry: o Xstream Display o Aperture: 70 cm o Rotational speeds: VariSpeed technology</p> <p>360 degrees in 0.35, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0 seconds o Integrated breathing lights &amp; countdown timer o Integrated start scan button with countdown timer o Tilt: +/- 30 degrees, 1 degree per second o Remote tilt from operator's console</p> <p>Performix HD X-ray Tube: Performix HD tube with 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 gives you 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"> <li>o Heat storage capacity: 8.0 MHU</li> <li>o Maximum power: 100 kW (835mA)</li> <li>o Small focal spot power: 570mA at 120kv, standard solution</li> <li>o Small focal spot power: 420mA at 120kv, high resolution</li> <li>o Beam collimated to 56-degree fan angle</li> <li>o Heat dissipation: -Anode (Max)&gt;2,100 KHU/min</li> </ul>

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			<p>-Casing (cont) 648 KHU/min o Dynamic Z-Axis Tracking: 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. HD High Voltage Generator: The HD Generator allows for continuous high power demands required for acute care, cardiac and bariatric exams. It also supports fast kV switching capabilities o 100 kW Output Power o kV: 80, 100, 120,140 o Energy Switching Speed: up to 0.25 msec o mA: 10 to 835, in 5 mA increments Maximum mA for each o kV selection/Max mA: - 80 kV / 700 mA - 100kV / 800 mA - 120kV / 835mA - 140kV / 715mA</p> <p>Volara HD Digital Data Acquisition System (DAS): o Up to 2,496 views per rotation for improvement in spatial resolution and improved image quality across the entire 50cm field of view o 7,131Hz maximum sample rate o 58,368 available input channels o 23 bit dynamic range, 8,000,000 to 1</p> <p>Integrated Laser Alignment Lights: o Internal and external scan planes to +/- 1 mm accuracy o Coronal light remains perpendicular to axial light as gantry tilts making visual readout easy from tableside or the operator console</p> <p>Patient Table: o Designed for easy patient access and stability o Vertical range: 43 cm to 99.1 cm, scannable: 78.5 cm to 99.1 cm o Horizontal range: 1700mm, (2000mm option) o Horizontal speed: up to 137.5 mm/sec o Table automatically re-centers on scan plane with changes in vertical position o Helical pitches: 0.5:1, 0.9:1, 1.375:1, 1:531:1 o Capacity: 227kg(500lb) +/- 0.25mm positional accuracy o Heavy Capacity (Optional): 306kg (675lb) with 2,000 mm scannable range</p> <p>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.</p> <p>o Delivers up to 35 ips full fidelity reconstruction o Delivers up to 55 fps reconstruction time with image check. Provides 340x340 matrix images for confirming reconstructed image coverage in real time and tracking up to 1800mm length with less than 1s delay. o Up to 16 ips network transfer rates o Direct Multiplanar Reformat (DMPR) enables prospective 3D review of sagittal, coronal and oblique planes automatically o Exam Split delivers the capability to split a series of patient images into separate groups for networking o Data Export and Interchange that allows you to easily share images with referring physicians and patients o 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. o Image decomposition to: -Retrospective thin images from data sets where thicker images were initially reconstructed Facilitates more detailed image &amp; analysis -Improves 3D and reformat visualization o Neuro 3D Filters provide users</p>

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			<p>the capability to filter angiographic data using a specially designed and optimized 3D filter. May be prospectively applied with Application Auto-Launch o VariViewer is an interactive axial review mode that can change the slice thickness reconstruction instantaneously</p> <p>Volume Viewer provides state-of-the-art 3D visualization and processing capabilities for reading and comparing CT, MR, 3D X-ray, PET and PET/CT datasets. Volume Viewer also features a broad portfolio of high-performance analysis tools, automating routine tasks and helping to make 3D image processing a stress-free component of your routine workflow.</p> <p>Scan: Xstream HD workflow allows simultaneous scanning, image reconstruction, display, processing and analysis, as well as networking, archival and filming. o Anatomical programmer allows quick and easy access to user programmable protocols, including adult and pediatric protocols o Protocols include preset scan time, kV, 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 o AutoVoice: 3 preset (English) and 17 user defined messages automatically deliver patient breathing instructions, especially useful for multiple helical scanning o Reconstruction Algorithms: Soft Tissue, Standard, Detail, Bone, Bone Plus, Lung and Edge</p> <p>Image Networking o Exam Transfer up to 16 frames per second on dedicated 1 Gbit connection o Standard auto-configuring Ethernet (UTP connection) 1000/100/10 BaseT Direct network connection; multi-suite ethernet card not required for gateway out of suite o Protocols supported: DICOM network send (one IP address at a time) and receive, pull/query, and storage commitment push, InSite point-to-point</p> <p>Host Computer PC: HP Z800 Workstation CPU : Intel Six core 2.66GHz X5650 Processor O/S 64-bit Cache: 12 Mb cache RAM: 48GB DDR3-1333MHz Storage: 2x300GB SAS for system and image RAID5 with 10x300GB SAS for raw data</p> <p>Peripheral Components o Scan control interface assembly with intercom speaker, microphone, volume controls and controls for table and gantry tilt o 19in 1280x1024 Color LCD Monitor (2 standard) o 104-Key USB 2.0 Keyboard o 3-Button USB 2.0 Mouse o 3-Button USB 2.0 Trackball (Option) o Slim-Line Tray-Load 16X DVD-ROM Optical Drive SATA 1st Drive o 5.25 in Bare Media o 9.4 GB Capacity o 480 Mb/s o USB 2.0 port interface supports External Hard Drive for Scan Data and USB key for System</p> <p>DICOM Conformance: o DICOM 3.0 Storage Service Class o Service Class User (SCU) for image send o Service Class Provider (SCP) for receive o DICOM 3.0 Query/Retrieve Service Class o DICOM 3.0 MOD Media Service Class o DICOM 3.0 Storage Commitment Class Push o DICOM 3.0 Modality Worklist (incl: Performed Procedure</p>

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			<p>Step through ConnectPro option) o DICOM 3.0 Print</p> <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>For US and Canadian Customers, this quotation includes access to DoseWatch Explore application for a period of time concurrent with the system warranty. DoseWatch Explore is an introductory dose management software application that provides you secure access, via any PC with internet access, to dose and protocol data from this system. An InSite connection to the system and completion of the registration process is required to use the DoseWatch Explore application.</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>This product complies with the NEMA XR 29-2013 / MITA Smart Dose Standard.</p> <p>Siting Considerations: See the Pre-Installation manual for details of the siting requirement</p>
2	1		<p>Revolution Discovery CT Cyber Security Release 1.0</p> <p>Revolution Discovery CT cyber security release 1.0 conforms to the cybersecurity guidelines of the U.S. Department of Defense. Revolution HD has received approval to operate (ATO issued July 1, 2015) / DIACAP PIT certification from</p>

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			<p>US Air Force. The enhancements include, but are not limited to, Antivirus/Malware protection, enhanced authentication, authorization and access controls, IPV6 compatibility, and encryption of data in transfer. It also provides users with file integrity checks and comprehensive audit logging capabilities. Security release 1.0 is compliant with the IA control number(s) as outlined in the GE Revolution family DIACAP scorecard. This upgrade only applies to the current approval as obtained by GE Healthcare under Revolution Discovery CT Cyber Security Release 1.0, and future cybersecurity releases, may be available for purchase.</p> <p>(This option requires HDe 3 or HDe 4 system software)</p>
3	1		<p>English Keyboard Kit</p> <p>English Keyboard Kit</p>
4	1		<p>Standard Cable set</p> <p>Standard length cable set</p>
5	1		<p>VT1700 TABLE</p> <p>The VT 1700 table enables volume scanning. Key features of the VT 1700 table include: 500 lb weight capacity, 1700 mm scannable range, 175 mm/sec travel time, real-time position control to support advanced applications such as SnapShot Pulse, VolumeShuttle and Volume Helical Shuttle. .</p>
6	1		<p>Low Dose CT Lung Screening Option with Indication For Use</p> <p>This option provides lung screening reference protocols that are tailored to the CT system, patient size (small, average large), and the most current recommendations from a wide range of professional medical and governmental organizations. Now, qualified GE Healthcare CT scanners with this option are formally indicated for, and can be confidently used by physicians for low dose CT lung cancer screening of</p>

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			<p>identified high-risk patient populations. These protocols deliver low dose, short scan times, and clear and sharp images for the detection of small lung nodules. Early detection from an annual lung screening with low dose CT in high-risk individuals can prevent a substantial number of lung cancer-related deaths.<sup>ii</sup></p> <p>All new GE 64-slice and greater CT scanners, and virtually all of the 16-slice CT scanners that GE Healthcare sells are qualified for this screening option. This solution is also available to thousands of qualified GE CT scanners currently in use, increasing access to the quality scanners that satisfy both patient and physician needs. The new protocols, do include the choice for the user to be able to utilize GE Healthcare's industry-leading technologies such as ASiRTM, ASiR-VTM and VeoTM that are designed to reduce image noise, which is undesirable for physicians looking for small nodules.</p> <p>This option contains two documents. Lung Cancer Screening Option Reference Protocol Guide, and the Lung Cancer Screening Option User Manual / Technical Reference Manual</p> <p>i The following GE Healthcare CT scanners are qualified to receive the new low dose CT Lung Cancer Screening Option: LightSpeed 16, BrightSpeed Elite, LightSpeed Pro16, Optima CT540, Discovery CT590 RT, Optima CT580, Optima CT580 W, Optima CT590 RT, LightSpeed Xtra, LightSpeed RT16, LightSpeed VCT, LightSpeed VCT XT, LightSpeed VCT XTe, LightSpeed VCT Select, Optima CT660, Revolution EVO, Discovery CT750 HD, Revolution HD, Revolution CT.</p> <p>ii Moyer V. Screening for Lung Cancer: U.S. Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2014;160:330-338.  <a href="http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/">http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/</a></p>
7	1		<p>Xtream Integrated Injector Interface Kit - Class IV</p> <p>Xtream Injector provides one handed synchronized start of the scan and injection from the CT Operators console or from the scan room providing consistent simultaneous start of contrast injection and scan acquisition protocols.</p> <p>It utilizes the CiA Class 4 functionality which includes the following benefits:</p> <p>Up to a 50% reduction in the number of user interface selections needed when compared to systems not utilizing the Xtream Injector. The 50% reduction comes from the fact that users select one button to start the scan acquisition and injection.</p> <p>o Better control of contrast enhancement by synchronizing start time of the contrast injection and CT scan  o Improved workflow by enabling single-button start of both the injector and scanner from the scanner  o Injection parameter preview from the scanner console prior to beginning the scan  o Post-study review of injection results from the scanner console  o Automatic documentation of injection results in PACS</p>



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8	1		<p>GemStone Spectral Imaging Option</p> <p>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 Discovery 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 differences in attenuation in terms of Water &amp; Iodine, Water &amp; Calcium, and Iodine &amp; Calcium basis-pair images, allowing mono-chromatic image representations via the Gemstone Spectral Imaging viewer.</p> <p>Gemstone Spectral Imaging option enables the Discovery 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:</p> <ul style="list-style-type: none"> <li>o registers energies more than 165 times faster than a dual source CT system at 0.35 second rotation speed.</li> <li>o generates derived images over a 50cm SFOV for the separation of materials such as calcium,</li> </ul>

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			<p>iodine and water.</p> <ul style="list-style-type: none"> <li>o provides derived monochromatic spectral images at 101 user selectable energy levels for image contrast optimization.</li> <li>o reduces beam hardening artifacts due to bone, metal, and other high contrast material (example: iodine) up to 50%</li> <li>o can detect iodine concentrations as low as 0.5% in density</li> </ul> <p>The Discovery CT750 HD system with Gemstone Spectral Imaging 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>
9	1		<p>GSI Cardiac Option</p> <p>The GSI Cardiac option allows for Spectral Imaging in prospective cardiac gating modes. The ability to alternate two kV energies at 0.5msec 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</p>

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			<p>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 keV. Material Density images and monochromatic spectral images may enable the following:</p> <ul style="list-style-type: none"> <li>- Enhanced accuracy of coronary vessel diameter assessment*.</li> <li>- Potential to reduce Beam Hardening artifacts to improve the accuracy of perfusion assessments when Beam Hardening is a concern.</li> <li>- Information to assist with plaque material composition assessments via the HU Spectral curves.</li> </ul> <p>GSI Cardiac is an option only available with Discovery CT750 HD and requires Gemstone Spectral Imaging and Cardiac Imaging options with an ECG Monitor.</p> <p>*As measured in a phantom using iodinated contrast material and hydroxyapatite.</p>
10	1		<p>Uninterruptible Power Supply for CT systems</p> <p>Un-Interruptible Power Supply</p> <p>Un-interruptible power supply provides power to CT console allowing the user to power down system in the event of source power loss; thus preventing the loss of scan data previously acquired before source power loss.</p> <p>This UPS also:</p>

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			<ul style="list-style-type: none"> <li>- Provides continuous protection to all of the system's major electronics subsystems</li> <li>- Protects the tube from power outages because it continues to provide power for tube cooling.</li> <li>- Minimizes system restart time by continuing to power the thermal control of the DAS and detector.</li> <li>- Provides enhanced ease of patient removal from the system by keeping the table powered.</li> </ul> <p>This is compatible with the Revolution HD, Revolution CT, Discovery CT 750HD and LightSpeed VCT systems.</p>
11	1		<p>CT Operator Console Desk</p> <p>The CT workspace is an ergonomic working environment specifically designed for use with the GE Healthcare imaging systems. The sleek table design enables the efficient use of space while enhancing clinical workflow and technologist comfort.</p> <p>The workspace provides a minimalist footprint to improve patient visibility and giving the user easier access to patients in the imaging suite.</p> <p>It can also help reduce noise and heat with remote location options of the console. It is 51.2" long x 35.25" wide x 33.5" in height and weighs 122.8 lbs. 1300mm long x 895mm wide x 850mm in height and weighs 55.8kg</p>
12	1		<p>125A Main Disconnect Panel (US)</p> <p>The 125 Amp CT System Main Disconnect Panel (MDP) serves as the main facility power disconnect source installed ahead of the system PDU. The MDP will disconnect system power on first loss of incoming power, helping to prevent damage to system components. It also includes an automatic restart control circuit which restores power to the CT System PDU after a power outage.</p> <ul style="list-style-type: none"> <li>• Can reduce installation time and cost by eliminating delays in obtaining individually enclosed components and on site assembly (ex: main circuit breaker, feeder overcurrent devices, magnetic contactors and UPS emergency power off are combined into a single panel)</li> <li>• Configuration flexibility - can be used as a stand-alone main disconnect or with the optional partial system UPS. (On systems where the optional partial system UPS is used the main disconnect panel also provides NEC mandated emergency power off control to both the PDU and UPS)</li> <li>• Designed and tested for GEHC CT products</li> </ul> <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>• Automatic restart incorporates an adjustable time delay to delay main power</li> </ul>

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			<p>until the power has stabilized for 5 seconds</p> <ul style="list-style-type: none"> <li>• One flush wall mounted remote emergency off pushbutton furnished with each system</li> <li>• UL, cUL and CE labeled</li> </ul>
13	1		<p>CT Table Slicker with Cushion - 1700 Systems (2-pc Set)</p> <p>CT Table Slicker with Cushion - 1700 Systems (2 Piece Set)</p> <p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> <li>• Two-piece, sealed slicker cushion set has comfort pads enclosed inside the slicker cover and extender cover</li> <li>• Durable, clear PVC plastic cover facilitates faster, more thorough cleanup of blood and fluids</li> <li>• Increase system uptime by protecting table from spills and particulate contaminants</li> <li>• Thermo-sealed seams and flaps prevent contaminate buildup in hard to clean areas</li> </ul> <p>COMPATIBILITY</p> <ul style="list-style-type: none"> <li>• VCT with GT 1700 Table, CT HD750</li> </ul>
14	1		<p>CT Footswitch Slicker - 2000 &amp; 1700 Systems</p> <p>CT Footswitch Slicker - 2000 &amp; 1700 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>
15	1		<p>TiP Applications CT Succeed Advance</p> <p>TiP Applications CT Succeed Advance</p> <p>TiP Applications CT Succeed Advance training includes:</p> <ul style="list-style-type: none"> <li>• 14 onsite days covered over 5 site visits</li> <li>• 4 hrs TVA, 1hr per week</li> <li>• 1 TiP Headquarter Class</li> </ul> <p>Onsite training and TVA are delivered Monday through Friday between 8AM and 5PM. T&amp;L expenses are included. Headquarters classes are delivered in the Milwaukee area and include travel and modest living expenses.</p>

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			This training program must be scheduled and completed within 24 months after the date of product delivery.
	<b>1</b>		<b>Discovery/Revolution HD IB Options</b>
16	1		<p><b>SMART MAR OPTION</b></p> <p>Smart MAR (Metal Artifact Reduction) software helps reduce photon starvation, beam hardening and streak artifacts cause by high Z materials in the body, such as hip implants, dental fillings, screws and other metal objects. MAR uses a novel three-step, sonogram-based iterative algorithm providing exceptional image quality. MAR also helps streamline workflow by requiring only one scan, making the process of obtaining a correct image fast and efficient.</p>
17	1		<p><b>ASiR-V Option</b></p> <p>ASiR-V is the newest technology in GE's family of industry leading iterative reconstruction techniques. ASiR-V allows healthcare providers to lower dose by up to 82% as compared to standard filtered back-projection (FBP) reconstruction at the same image quality<sup>1</sup></p> <p>ASiR-V may provide the following.</p> <ul style="list-style-type: none"> <li>• ASiR-V reduces dose by up to 82% relative to FBP at the same image quality<sup>1</sup></li> <li>• ASiR-V improves low contrast detectability by 59% to 135% at the same dose+</li> <li>• ASiR-V reduces image noise up to 91% at the same dose+</li> <li>• ASiR-V improves spatial resolution up to 2X (107%) at same image noise+</li> <li>• ASiR-V image reconstruction has the capability to reduce low signal artifact such as streak artifact compared to FBP+</li> </ul> <p>Image quality as defined by low contrast detectability.</p> <p>In clinical practice, the use of ASiR-V 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 clinical task. Low Contrast Detectability (LCD), Image Noise, Spatial Resolution and Artifact were assessed using reference factory protocols comparing ASiR-V and FBP. The LCD measured in 0.625 mm slices and tested for both head and body modes using the MITA CT IQ Phantom (CCT183, The</p>

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			Phantom Laboratory), using model observer method.
	<b>1</b>		<b>AW VOLUMESHARE 7</b>
18	2		<p>AW VolumeShare 7 Hardware Upgrade</p> <p>AW Hardware Upgrade to VolumeShare 7 with 32GB of RAM.</p> <p>All applicable existing licenses will be transferred at system install.</p> <p>NOTE: The AW Workstation that is to be Upgraded with this purchase becomes the Property of GE Healthcare. Upon Installation Of the New AW Workstation, the current AW Unit must be De-Installed and Returned To GE Healthcare.</p> <p>NOTE: A Signed Trade-in Addendum Required Upon Order.</p> <p>AW VolumeShare 7 is a multi-modality image review, comparison and post processing workstation built with simplicity and power at its core. Powerful software is optimized to take advantage of state of the art 64 bit technology and multiple cores to ensure leading edge performance.</p> <p>AW VolumeShare 7 features include:</p> <p>Hardware:</p> <ul style="list-style-type: none"> <li>o HP Z440 Workstation</li> <li>o CPU: Intel Xeon E5-1660v3 (Haswell) Eight-Core @ 3.0 GHz with 20MB L3 Shared Cache each with Dual QPI @ 8 GT/s</li> <li>o RAM: 32GB (8x4GB) Four-channel DDR4 ECC RDIMM @ 2133 MHz</li> <li>o GRAPHICS: NVIDIA Quadro NVS310 with</li> </ul>

Item No.	Qty	Catalog No.	Description
			<p>1 GB Video RAM</p> <ul style="list-style-type: none"> <li>o 1x 256GB SATA3 SSD for OS and Apps</li> <li>o 2x 512GB SATA3 SSD in RAID 0 for 1TB data storage</li> </ul> <p>Software:</p> <ul style="list-style-type: none"> <li>o GE Healthcare HELiOS 6 operating system</li> <li>o Volume Viewer for advanced post-processing</li> <li>o Demo Exams for training and exploration</li> <li>o Fast access to information you need through optional RIS integration &amp; priors post-fetch</li> <li>o Efficient workflow through dynamic load, end review and Key Image Notes features</li> <li>o Productivity package to pre-process exams and allow up to 8 simultaneous sessions</li> <li>o Applications usage monitor to track and view usage of your system</li> <li>o Smart layouts with Volume Viewer General review protocol that optimizes comparison and single exam layouts</li> <li>o Enhanced multi-modality contouring tool with support for PET SUVs</li> <li>o Support for external DICOM USB media and preference management tool to exchange preferences across users</li> <li>o Support for optional, broad suite of multi-modality advanced applications</li> </ul>
19	1		<p>AW VolumeShare 7 Monitors</p> <p>AW VolumeShare 7 Monitor are two high-quality monitors offering bright and high contrast imagery suited to the display of medical images per the AW VolumeShare Indications for Use. Each provides a 19" 1280x1024 (5:4 aspect ratio) display that complies with international medical and patient safety standards and offers the following specifications:</p>



Item No.	Qty	Catalog No.	Description
			<ul style="list-style-type: none"> <li>• Maximum luminance (panel typical) : 330 nit</li> <li>• DICOM Part 14 calibrated luminance: 215 nit</li> <li>• Contrast ratio (panel typical) : 900:1</li> <li>• An ambient light sensor</li> <li>• Brightness non-uniformity (measured as per DIN6868-157) : +/-25%</li> </ul>
20	2		<p>GSI Viewer</p> <p>The GSI Viewer is the application tool for viewing and manipulating spectral images acquired on GE scanners with the Gemstone Spectral Imaging option.</p> <p>Key features include:</p> <ul style="list-style-type: none"> <li>o Protocol Driven Design - This feature provides a standard set of protocols with the additional ability for users to create and save their own protocols.</li> <li>o 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.</li> <li>o 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.</li> <li>o Material Density Analysis - Users can visually see how the GSI data is segregated amongst a material density pair, e.g. water and iodine.</li> <li>o Plot Analysis - This feature displays ROI's as graphical plots in the form of a histogram, a scatter plot, spectral HU curve</li> </ul>

Item No.	Qty	Catalog No.	Description
			<p>and an optimal CNR (contrast to noise) plot.</p> <p>Benefits are:</p> <ul style="list-style-type: none"> <li>o Material Decomposed images allow for the separation of materials like calcium, iodine, and water.</li> <li>o Visualize a virtual non-contrast like image using water-iodine basis pair image.</li> <li>o Adjusting monochromatic energy levels can optimize image contrast and reduce beam-hardening artifacts.</li> <li>o Discriminate different tissue types based on material density and monochromatic image data.</li> </ul> <p>System Requirements:</p> <ul style="list-style-type: none"> <li>o AW VolumeShare 7 or AW Server 3.2</li> <li>o Two monitor/flat panel configuration recommended</li> </ul> <p>Note: All software are Non-Transferable to other hardware and are Non-Returnable.</p>
	1		<b>AW Server 3x2</b>
21	1		<p>Professional Services of Project Management.</p> <p>This catalog includes Professional Services of Project Management.</p> <p>Dedicated Project Manager will work with customer IT department hand-in-hand and serve as a single point of contact from project initiation to customer training and turnover.</p> <p><b>LightSpeed VCT</b></p>

Item No.	Qty	Catalog No.	Description
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## Options

22 1

martStep with Monitor

martStep for CT Scanner Systems  
ncludes In -Room Monitor & Boom)

martStep

nables an Imaging Mode for Performing  
opies and Other Interventional Procedures.  
n In-room Monitor, Hand Held Controller,  
-ray Exposure Foot Pedal and Cradle Handle  
rovide In-room Control for Image Acquisition  
nd Image Review. The Hand Held Controller  
rovides the Operator with Controls to Prepare  
e Scanner for Imaging, to Turn Alignment  
ghts On and Off, to Move the Cradle, Review  
ages and Adjust the Window Width and Level;  
nd the Foot Switch Provides In-room Control  
f X-ray On.

Highly Functional Image Display Presents a  
et of 3 Interventional Images in 3 Viewports,  
Free Viewport, and Timers for the Remaining  
nd Accumulated Time. The Display Control  
anel Provides Roam, Zoom, Magnify, Measurement,  
notation, Grid, Image Orientation, and Save  
creen Image Review Capabilities. Data  
cquisition Includes a 4i Data Acquisition  
ode Using 4x1.25 mm, 4x2.25 mm, and 4x3.75 mm  
etector Configurations and a 3i Reconstruction  
ode to Create 2.5, 3.75 and 7.5 mm Thick 512  
atrix Images. All Scan Fields of View and  
econstruction Algorithms are Available with

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			0.8s and 1.0s Gantry Rotation Speed. System Includes the In-room Monitor & Boom .	
23	1		<p>AW Server 3.2 Ext 1 L</p> <p>AW Server 3.2 Ext 1 L</p> <p>The AW Server delivers distributed 3D visualization capabilities throughout the enterprise and at any remote reading location. It utilizes state-of-the-art thin client technology to convert virtually any PC to a high-end 3D post processing station. In addition to this, it serves as a workflow engine enabling optimal collaboration among physicians and allows 3D visualization to be leveraged easily to diagnose diseases quickly and make sound decisions. 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.</p> <p>The AW Server includes a vendor neutral OpenAPI PACS integration interface that enables launching the AW Server client from a variety of PACS software, both GE Healthcare provided and 3rd party. This capability supports passing the patient context to the client and even the application desired to be launched, so that time is saved and applications can be launched directly into the most relevant layout. This functionality may require work on the part of the PACS workstation or third party software provider.</p> <p>The following capabilities are included in this catalog:</p> <ul style="list-style-type: none"> <li>• AW Server client software which may be deployed to an unlimited number of systems by simply downloading the client application from the AW Server's web interface.</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"> <li>• Support for 10 concurrent users of 2D tools of which 3 may run 3D advanced applications</li> <li>• Up to 40,000 concurrent (equivalent to 512x512 CT) slices shared between users</li> <li>• 3 concurrent Volume Viewer licenses</li> <li>• Support for additional VolumeShare 7 advanced applications which require separate purchased license(s)</li> <li>• Support for a single user for GSI Viewer (requires optional license purchase)</li> </ul> <p>Key features:</p> <ul style="list-style-type: none"> <li>• Access to 3D visualization capabilities including MIP/MPR/VR, segmentation, fly through and PET/CT</li> <li>• "Smart Compression" technology automatically displays full fidelity static images even when compression is turned on for increased interactivity. This allows for full fidelity static images even at low bandwidth. On-image visual indicators notify user when compression is in effect.</li> <li>• Intuitive work list interface with custom work lists, easy access to priors and exam states.</li> <li>• Programmable ability to automatically push saved results to a DICOM host such as PACS when closing a session.</li> <li>• Optional pre-processing capability to automatically process exams in background based on preset rules, minimizing wait time and keeping exams ready to read.</li> <li>• Ability to open up to 3 simultaneous application sessions per active user and instantly switch between these sessions.</li> <li>• 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.</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"> <li>• Ability to float application licenses between AW workstations (requires VolumeShare 2 or later) and one or more AW Server(s)</li> <li>• Enterprise directory integration for single sign on user authentication with audit trails.</li> <li>• Open API for PACS integration</li> </ul> <p>Performance and intended uses:</p> <p>Performance and interactivity on client PC's depend 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. A minimum of 3Mbps bandwidth is required.</p> <p>The server supports various compression levels selectable by user. The "Smart Compression" technology applies selected compression level only when user is interacting with the images to optimize performance. The images are automatically displayed at full fidelity once interaction stops. Clear visual indication on the images indicates any time compression is being applied to the images.</p> <p>Specifications:</p> <p>Server Hardware:</p> <ul style="list-style-type: none"> <li>• Dual Intel Xeon E5-2630 six core CPUs.</li> <li>• 64GB RAM.</li> <li>• Mirrored 146GB disk for OS, additional local storage for image cache.</li> <li>• 1 Gbps NIC for DICOM and client traffic.</li> <li>• Dedicated Embedded Lights Out Manager (LOM).</li> <li>• Fully redundant power and cooling.</li> <li>• Tower form factor.</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"> <li>• 2TB disk for image storage.</li> <li>• Raid 10 (striped and mirrored) to maximize data integrity, redundancy and performance.</li> <li>• Operating System: GE HELIOS 6.6</li> </ul> <p>Client PC requirements:</p> <p>It is the customer's responsibility to make sure every client PC meets these minimum specifications for optimal performance.</p> <p>Hardware:</p> <ul style="list-style-type: none"> <li>• Processor: 2.2 GHz Pentium 4 minimum (or equivalent); Dual core processors recommended.</li> <li>• Memory: 1024 MB minimum.</li> <li>• Disk drive: 250MB free space available.</li> <li>• Screen resolution 1024H x 768V minimum with full color (32 bit) (1280H x 1024V or more recommended). Symmetric dual monitors up to a total of 6 MP are supported with 4 MP recommended for optimal performance</li> <li>• Network card 100 Mbps minimum (1000 Mbps recommended).</li> <li>• Internet connection. Customer provided IPSEC VPN, for internet/WAN operation.</li> <li>• Mouse: Two or three-button mouse. Three button mouse suggested for best use of functions.</li> </ul> <p>Software:</p> <ul style="list-style-type: none"> <li>• Windows 7 SP1 32 and 64 bit</li> <li>• Windows 8.1 32 and 64 bit</li> <li>• Mac Parallels (Mac OS X 10.10, Parallels 10, Windows 7 SP1 32/64 bit, Windows 8.1 32/64 bit)</li> </ul> <p>Installation Includes:</p> <ul style="list-style-type: none"> <li>• Site readiness survey</li> </ul>	



Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"><li>• Installation of Enterprise OS.</li><li>• Installation of GE Healthcare applications software.</li><li>• Configuration of active directory (if required).</li><li>• Configuration of up to 5 DICOM hosts provided prior to installation.</li><li>• Installation of one client for purposes of server testing and applications training.</li></ul> <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>	