

DEPARTMENT OF HEALTH AND HUMAN SERVICES DIVISION OF HEALTH SERVICE REGULATION

ROY COOPER GOVERNOR MANDY COHEN, MD, MPH SECRETARY

> MARK PAYNE DIRECTOR

June 26, 2017

Jeffrey Shovelin, Director of Corporate Planning PO Box 6028 Greenville, North Carolina 27835-6028

Exempt from Review - Replacement Equipment

Record #:

2302

Facility Name:

Vidant Beaufort Hospital

FID #:

932963

Business Name:

East Carolina Health-Beaufort, Inc.

Business #:

2665

Project Description:

Replace CT Scanner

County:

Beaufort

are-Allians for

Dear Mr. Shovelin:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of June 16, 2017, the above referenced proposal is exempt from certificate of need review in accordance with N.C. Gen. Stat. §131E-184(a)(7). Therefore, you may proceed to acquire without a certificate of need the GE Revolution EVO CT scanner to replace the existing Siemens Somatom Sensation 64 CT scanner. This determination is based on your representations that the existing unit will be sold or otherwise disposed of and will not be used again in the State without first obtaining a certificate of need if one is required.

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

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

Sincerely,

Jane Rhoe-Jones Project Analyst

Martha J. Frisone

Chief, Healthcare Planning and Certificate of Need Section

cc:

Construction Section, DHSR

Acute and Home Care Licensure and Certification Section, DHSR Paige Bennett, Assistant Chief, Healthcare Planning, DHSR

HEALTHCARE PLANNING AND CERTIFICATE OF NEED SECTION

WWW.NCDHHS.GOV TELEPHONE 919-855-3873

LOCATION: EDGERTON BUILDING • 809 RUGGLES DRIVE • RALEIGH, NC 27603 MAILING ADDRESS: 2704 MAIL SERVICE CENTER •RALEIGH, NC 27699-2704 AN EQUAL OPPORTUNITY/ AFFIRMATIVE ACTION EMPLOYER



June 16, 2017

Ms. Jane Rhoe-Jones Certificate of Need Section Division of Health Service Regulation NC Department of Health and Human Services 2704 Mail Service Center Raleigh, NC 27699-2704



RE: Request for "No Review" for a CT Scanner Replacement at East Carolina Health-Beaufort, Inc. d/b/a Vidant Beaufort Hospital

Dear Ms. Rhoe-Jones:

East Carolina Health-Beaufort, Inc. d/b/a Vidant Beaufort Hospital (VBEA) plans to replace an existing Siemens Somatom Sensation 64 CT scanner with a new GE Revolution EVO CT scanner. The reason for the replacement is due to the age and subsequent performance and technology limitations of the existing equipment (originally purchased in 2001). The total capital costs for the proposed replacement is estimated to be \$1,065,267 (see Appendix D). These costs include all expenses associated with the equipment replacement. The project will be funded through accumulated reserves and is anticipated to be complete by December 2017.

VBEA believes the proposed is exempt from CON review under G.S. 131E-184(a)(7) that states:

(a) Except as provided in subsection (b), the Department shall exempt from certificate of need review a new institutional health service if it receives prior written notice from the entity proposing the new institutional health service, which notice includes an explanation of why the new institutional health service is required, for any of the following: (7) To provide replacement equipment.

G.S. 131E-176(22a) defines "Replacement Equipment" as:

Equipment that costs less than two million dollars (\$2,000,000) and is purchased for the sole purpose of replacing comparable medical equipment currently in use which will be sold or otherwise disposed of when replaced. In determining whether the replacement equipment costs less than two million dollars (\$2,000,000), the costs of equipment, studies, surveys, designs, plans, working drawings, specifications, construction, installation, and other activities essential to acquiring and making operational the replacement equipment shall be included. The capital expenditure for the equipment shall be deemed to be the fair market value of the equipment or the cost of the equipment, whichever is greater.

Since VBEA's project costs less than \$2,000,000 and is being done for the sole purpose of replacing comparable medical equipment currently in use, the proposed project meets the definition of "replacement equipment" Since the proposal meets the definition of "replacement equipment", VBEA believes it is exempts from CON review. Specifically:

- a) The proposed project meets the definition of replacement equipment found in G.S. 131E-176(22a) in that the new equipment is being purchased for the sole purpose of replacing comparable medical equipment that is currently in use and otherwise disposed of when replaced. Reference Appendix F for the Responses to Replacement Equipment Key Questions, Appendix B for the equipment comparison table, and Appendix E for the existing equipment disposal letter from the vendor.
- b) The equipment is being replaced in the exact location where the existing equipment currently resides and is located on VBEA's main campus. Reference Appendix C for Site Plans and Floor Plans associated with the proposed project.
- c) The cost of the equipment is less than two million dollars. The cost of all studies, surveys, designs, plans, working drawings, specifications, construction, installation, and other activities essential to acquiring and making operational the replacement equipment were included in determining cost of the equipment. Reference Appendix D for a detailed capital cost sheet.
- d) VBEA is a licensed health service facility and has administrative and financial control of the site where the equipment will be replaced. Reference Appendix G for documentation.
- e) By this letter, VBEA is providing prior written notice to the Department, along with supporting documentation to demonstrate need.

VBEA's proposal meets the requirements identified above and believes the proposed project is exempt from review. Therefore, VBEA requests approval of a no review status for the proposed project.

If you require additional information or clarification, please contact me at (252)-847-3631.

Sincerely,

Jeffrey Shovelin

Director of Corporate Planning

Vidant Health

PO Box 6028, Greenville, NC 27835-6028

(252) 847-3631

jshoveli@vidanthealth.com

Appendix A Vendor Quote



Date: Quote #: 04-05-2017 PR10-C81388

Version #:

15

Vidant Beaufort Hospital 628 E 12th St Washington NC 27889-3409

Attn: David Greenfield 628 E 12th St Washington NC 27889-3409

Customer Number:

1-23I1U3

Quotation Expiration Date: 06-30-2017

The terms of the Master Purchasing Agreement, Strategic Alliance Agreement or GPO Agreement referenced below as the Governing Agreement shall govern this Quotation. No additional or different terms shall apply unless agreed to in writing by authorized representatives of both parties.

Governing Agreement:

Novation - Vizient Supply LLC

Terms of Delivery:

FOB Destination

Billing Terms:

80% delivery / 20% Installation

Payment Terms:

NET 30

Total Quote Net Selling Price:

\$415,266.50

INDICATE FORM OF PAYMENT:			
If "GE HFS Loan" or "GE HFS Lease" is Services (GE HFS) to fund this arrange		e of signature, then you may NOT elect to seek financing with G	E Healthcare Financial
Cash/Third Party Loan			
GE HFS Lease			
GE HFS Loan			
Third Party Lease (please identif	y financing company)		
		made any handwritten modifications. Manual changes on and an indication in the form of payment section below) wi	
Each party has caused this agree	ment to be executed b	by its duly authorized representative as of the date set for	th below.
CUSTOMER		GE HEALTHCARE Nicholas Bengel	04-05-2017
Authorized Customer Signature	Date	Signature	Date
Print Name	Print Title	Imaging Account Manager	
Purchase Order Number (if applica	able)	Email: nicholas.bengel@ge.com Office: +1 414 238 7008	



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Total Quote Selling Price Trade-In and Other Credits

Total Quote Net Selling Price

\$455,266.50 \$40,000.00

\$415,266.50

To Accept this Quotation

Please sign and return this Quotation together with your Purchase Order To:

Nicholas Bengel

Office: +1 414 238 7008

Email: nicholas.bengel@ge.com

Payment Instructions

Please Remit Payment for invoices associated with this quotation to:

GE Healthcare P.O. Box 96483 Chicago, IL 60693

To Accept This Quotation

- Please sign the quote and any included attachments (where requested).
- If requested, please indicate, your form of payment.
- If you include the purchase order, please make sure it references the following information
 - The correct Quote number and version number above
 - The correct Remit To information as indicated in "Payment Instructions" above
 - The correct SHIP TO site name and address
 - The correct BILL TO site name and address
 - The correct Total Quote Net Selling Price as indicated above



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n #:

04-05-2017

GPO Agreement Reference Information

Customer:

David Greenfield

Contract Number:

PLEASE SEE NOVATION CONTRACT # BELOW

Start Date:

End Date:

12/31/2021

Billing Terms:

80% delivery / 20% Installation

Payment Terms:

NET 30

Shipping Terms:

FOB Destination

NOTICE REGARDING COMPUTED TOMOGRAPHY ("CT") PRODUCTS. This notice applies only to the following GE Healthcare products: CT: Revolution CT and EVO, Optima 680 CT and Optima 520 CT. GE Healthcare has reclassified several advanced software tools and associated documentation to a GE Healthcare Technical Service Technology package that GE Healthcare feels will bring greater value and interest to our customers. GE Healthcare will continue to provide trained Customer employees with access to the GE Healthcare Technical Service Technology package under a separate agreement. GE Healthcare will continue to provide customers and their third party service providers with access to software tools and associated documentation in order to perform basic service on the CT, MR and NM products listed above upon a request for registration for such access. This will allow GE Healthcare to react faster to the future service needs of GE Healthcare customers. If you have any questions, you can contact your sales Service Specialist.

This product offering is made per the terms and conditions of Novation/GE Healthcare GPO Agreement # XR0321 (CT) and # XR0351 (PET-CT).

For access to the applicable Novation Agreement and Contract Summary, please login to the Novation Marketplace website. If you require assistance or are experiencing issues please contact one of the following for support:

Novation Customer Service (888) 7-NOVATE NOVCustomer Service @novation co.com

Web Site Technical Support (800) 327-8116 NovationTechSupport@novationco.com



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Qty Catalog No. Description

Revolution EVO** 32 (64 OLR)
Revolution EVO**

1

1 S7880ES

Revolution EVO System- ES configuration

Today's healthcare environment is about creating new solutions to pressing needs. It's about understanding how one CT exam can improve patient outcomes while lowering the cost of providing care. Revolution EVO is designed with the purpose of operating in this new reality, while anticipating the challenges of tomorrow. It's designed to support the widest variety of patients and applications, from complex trauma or cardiac cases, to large patient backlogs in busy emergency departments that strain workflows and resources. The design of Revolution EVO is made for institutions that are unable to sacrifice advanced capabilities such as high resolution for daily productivity. It is well suited for those who need to provide the lowest dose possible. And it provides options to expand your referral physician base and the services you provide to your community.

Revolution EVO is the next generation Volume CT with compact design and advanced technologies including Clarity Imaging system delivering up to 0.28mm of spatial resolution enabling you to see fine anatomical details, providing a pathway to a quick, confident diagnosis and delivering vastly improved image quality across the entire body enables you to broaden your clinical applications and potentially improve treatment paths for diverse patient needs. Diagnostic images at the right dose add up to great care. Our innovative iterative reconstruction technologies are designed to reduce noise levels, improve low-contrast detectability and reduce dose for all patients.

Additional Smart Dose technologies like organ dose modulation and XR-29 capabilities help you monitor, measure and manage your dose delivery.

Often the only thing you can predict about your workday is how unpredictable it will be. Revolution EVO is designed to help you manage this unpredictability - quickly and compassionately. Revolution EVO Smart Flow technologies are designed to help you improve productivity by streamlining user workflow and access to information, enabling you to perform more studies in less time and manage your patient flow up to 40% more efficiently.

Revolution EVO is designed to help you compete in your market by helping to manage the health of your patient population today with precision, efficiency and the right dose. ASiR-V low-dose capabilities make it ideal for pediatric scans, oncology and chronic disease follow-up. At the same time, Revolution EVO can give you the flexibility to expand your services to the fastest growing procedures like advanced coronary CCTA and TAVI planning.

Revolution EVO is designed for you

Clarity Imaging Chain

Completely redesigned imaging chain resulting in the best spatial resolution in its class. Including wide coverage of 40 mm and high resolution so that you can see details as small as just 0.28 mm. Clarity's patented design integrates the data acquisition system directly with the

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Qty Catalog No.

Description

photo diode reducing the size of this integrated system by 75%, improving signal to noise by 44% and power consumption by 50% compared to previous systems. The Performix 40 Plus tube delivers exceptional performance. The new liquid bearing and dual focal spot design improves precision and up to 0.35 second routine rotation enables faster scan times. This may allow for shorter breath holds, may reduce the need for sedation and reduce patient motion artifacts.

Clarity Imaging Chain provides the following:

- 40 mm of coverage at 1.25mm slice thickness
- Cable free between ASIC and Diode, and has a capability to reduce electric noise.
- Generation, up to 90% less heat compared with previous GE technology
- Improved signal to noise up up 44% compared with previous GE technology
- Optimized collimator to reduce scatter dose, noise and artifacts.
- Performix40* Plus X-ray tube provides less focus movement.
- Using the 0.35sec rotation speed and higher pitch, a full-body trauma scan of 1000 mm can be acquired in as little as 6 seconds.

ASIR iterative reconstruction technology may enable reduction in pixel noise standard deviation (a measurement of image noise). The ASIR algorithm may allow for reduced mA in the acquisition of images, thereby reducing the dose required.

ASIR iterative reconstruction technology also may enable improvement in low contrast detectability(**)

(**) 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 physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task.

ASiR-V optional

Smart Technologies

Smart Dose

Intelligent technology designed to help you acquire high-quality images using lower doses of radiation, contributing to more accurate diagnoses and lower exposures for patients. Includes dose management tools such as organ dose modulation,

Organ dose modulation

Organ Dose modulation provides reduction of radiation dose via X-ray tube current modulation for sensitive tissues, such as breasts or eyes.

Revolution EVO is compliant with the NEMA XR 25, and XR 29 standards.

Including: Dose Check, DICOM Structured dose reporting. Adult and Pediatric reference protocols

Dose Check - Patient pre-scanning monitoring and alerts.

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Description

Receive notifications and alerts if your predetermined dose levels will be exceeded. You can correct and confirm the right settings before scanning to avoid unnecessary radiation dose to your patient. Dose check is based on standard XR 25-2010 published by The Association of Electrical and Medical Imaging Equipment Manufacturers (NEMA).

Dose Reporting: CTDIvol, DLP, Dose Efficiency are displayed to the user during scan prescription and at the end of the exam. The CTDIvol, DLP, and Phantom size used to calculate dose is automatically saved once the user selects End Exam.

DICOM Structured Dose Report generates a CT Dose Report, which can enable tracking of dose (CTDIvol and DLP) for the patient by the hospital radiation tracking system.

3D mA Modulation utilizing SmartmA and AutomA,

3D mA Modulation allows you to personalize protocols and optimize dose for every patient – large and small. During the patient scan, in real-time, these automatic exposure controls, modulate dose in 3D helping you deliver consistent mage quality because it automatically accounts for the changing dimensions of your patient's anatomy. 3D mA modulation acquisitions may reduce dose compared with fixed mA acquisitions. Auto mA modulation is designed to optimize the dose for the user prescribed noise index. Its effect on dose depends on the patient body habitus, and prescribed noise setting.

Dynamic Z-axis tracking

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

DoseWatch Explorer*§ Web based dose management solutions.

Analyze, identify, and optimize patient dose. Track and monitor patients' cumulative radiation dose over time and take steps to prevent excessive radiation dose.

- 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. For US and Canadian Customers, this quotation includes access to the DoseWatch Explore application for a period of time concurrent with the system warranty.

Smart Flow

Designed to help you improve productivity and patient experience by streamlining your workflow and access to information.

Smart Flow technologies:

Silent design of Revolution EVO gantry allows significant reduction of audible noise compared with previous GE technology.

Xtream Display is a multi-purpose touch LCD screen on the Revolution EVO gantry. .Xtream Display can show the user basic patient information as well as enable advanced capability of



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Description

One Stop ED mode and instructional or distraction videos. The user can confirm patient information in the scan room, improving workflow improvement with preset positioning (Default Patient positioning) on gantry display.

Fast, hands-free patient positioning

Xtream Display provides workflow improvement with preset positioning (Default Patient Positioning) on the gantry display. Default Patient Positioning provides user friendly positioning. After patient is positioned on the table, the operator touches the selects the anatomical reference on the Xtream Display. The table is transferred to that anatomical reference simply by the foot pedal has been pressed by the user.

One stop scanning mode - Exam prescription from the patient's side,

Revolution EVO's exceptional one stop scanning mode provides a streamlined workflow on the Xtream Display. From the Xtream display at the gantry the user can: 1. select the patient from the worklist, 2, Select the appropriate protocol, 3, Confirm the firm the 1st within the selected protocol. All without having to leave the patients side.

Image Check - Real-time reconstruction during the scan:

With Image Check, up to 55 images are reconstructed and available per second. Reconstructing images in real time helps you focus solely on the well being and diagnosis of your patient.

Instructional or Distraction videos

Instructional videos are to assist the user in explaining the CT examination to patients. This is very useful when the user and patient do not speak the same language. Distraction videos are for young patient to help keep them distracted during exam prep and scanning. Additional the Movie Change feature allows you to upload your own video

10 PMRs

For trauma patients, when the extent of the injuries is unknown, you can prospectively prescribe up to 10 multiphase reconstructions and easily prioritize which one you need first. Protocol management

GE's protocol management is improved with the addition of a workflow improvement feature, which allows easy configuration of back to back Axial or helical scans of the same anatomy at two different X-ray energies (kVps). To further improve registration accuracy, patient immobilization may be utilized. The additionally acquired dual energy data can be post-processed on console or AW workstation using Add/Sub function to gain additional clinical information.

Access to advanced applications right on the console.

Smart IQ

IQ Enhance pitch booster - Scan a chest in as fast as two seconds with 175 mm/sec acquisition speed to help shorten patient breath-holds while maintaining image quality. Requires 0.35 second rotation speed capability to achieve 175mm/sec...

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Description

Adaptive Enhance Level Adjustment (AELA) may improve visual spatial resolution while maintaining pixel noise standard deviation and artifact.

Direct MPR with Auto-Batch feature, affording automatic real-time direct reconstruction and transfer of fully corrected multi-planar images, also allows users to move from routine 2D review to prospective 3D image review of axial, sagittal, coronal, and oblique planes while enabling automated protocol-driven batch reformats to be created and networked to their desired reading location.

Scan mode: Helical

- Helical Scan Speeds: Full 360° rotational scans: 0.7, 0.8, 0.9, 1.0 second
- Helical Pitch (nominal): 0.516 to 1.531
- Cardiac Pitch: 0.16 to 0.325 (with cardiac option)
- Selectable kV: 80, 100, 120, 140
- Selectable mA: 10 to 560, 5mA increments
- Reconstruction Algorithms: Soft Tissue, Standard, Detail, Chest, Bone, Bone Plus, Lung, Ultra, Edge, Edge Plus

Scan Mode: Axial & Cine

- Scan Speeds: 0.7, 0.8, 0.9, 1.0, and 2.0 second full scans (360° acquisition).
- Selectable kV: 80, 100, 120, 140
- Selectable mA: 10 to 560, 5mA increments
- Scan Plane Geometry: ± 30° gantry tilt, 0.5° increments
- Reconstruction Algorithms: Soft Tissue, Standard, Detail, Chest, Bone, Bone Plus, Lung, Ultra, Edge, Edge Plus

System Components:

Gantry Advanced slip ring design continuously rotates the generator, Performix*40 Plus, Clarity detector and data acquisition system around the patient.

Aperture: 70 cm

Maximum SFOV: 50 cm

Tilt: +/ 30 degrees, speed 1 degree/sec

Multi-purpose LCD touch screen display with workflow features

Integrated start scan button with countdown timer to indicate when x-ray will turn on.

X-ray Tube: Performix*40 plus liquid metal bearing tube unit offers an optimized design for exams requiring a number of scans without tube cooling.

- Performix*40 Plus with 7.0MHU of storage and capability of 72 kw operation provides increased helical performance with greater patient throughput
- Wide range of technique (10 mA to 400 mA, in 5 ma increments) gives technologist and



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Description

physician flexibility to tailor protocols to specific patient needs for optimizing patient dose.

- Heat storage capacity: 7.0MHU(Performix*40 Plus)
- Dual Focal Spots:
- o Small Focal Spot: 0.7 (W) x 0.6 (L) Nominal Value; (IEC 60:193)
- o Large Focal Spot: 0.9 (W) x 0.9 (L) Nominal Value; (IEC 60:193)

High Voltage Generator: High Frequency on-board generator allows for continuous operation during scan.

400mA based system

- kV: 80, 100, 120, 140
- Max Power: 48kW (72kW optional)
- mA: 10 to 400 mA 5mA increments (up to 600mA option),

Clarity Hilight Detector:

64 slice system

40 mm Clarity Hilight Detector system is comprised of 54,272 individual elements providing 20mm of 0.625mm slice coverage and 40mm of 1.25mm slice coverage. Data is acquired either as thin slice at 0.625mm or as thicker slices at 1.25mm with the ability of thicker slices from image reconstruction or processing. 98% absorption efficiency.

Clarity DAS (Data Acquisition System): The Clarity DAS dramatically reduces noise and improves image performance.

- 2,460 Hz maximum sample rate.
- 861 1968 views per rotation.

Revolution EVO computer system:

- 2,100GB Disk (system, image, scan disks) stores up to 460,000 512x512 images and 3520 scan rotations at 64 slice mode or up to 1,500 scan data files, or up to 300 exams.
- Reconstruction speed with Standard reconstruction: Up to 55 frames per second with Image
 Check and Up to 35 frames per second in full 512 matirx

Warranty: The published Company warranty in effect on the date of shipment shall apply. The Company reserves the right to make changes.

General Electric Company reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Laser alignment devices contained within this product are appropriately labeled according to the requirements of the Center for Devices and

Radiological Health.

Asterisk*: Trademark of General Electric Company

1 B7590EN

English Keyboard Kit



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Catalog No. Description Qty English Keyboard Kit B7660MR CT Standard cable set 1 System standard cable set VT1700 TABLE 1 B7880AB The Optima 1700 table enables volume scanning. Key features of this 1700 table include: easy patient access by lowering to <17 inches from the floor, 500lb weight capacity, up to 1700mm scannable range, 137.5 mm/sec travel time, real-time Z-axis position feedback between gantry and table. B7900LC Low Dose CT Lung Screening Option with Indication For Use 1 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 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.ii 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. This option contains two documents. Lung Cancer Screening Option Reference Protocol Guide, and the Lung Cancer Screening Option User Manual / Technical Reference Manual 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. ii Moyer V. Screening for Lung Cancer: U.S. Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2014;160:330-338. http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/lung-cance Smart MAR option 1 B7880MR



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Description

MAR (Metal Artifact Reduction) software MAR helps reduce photon starvation, beam hardening and streak artifacts caused by high Z materials in the body, such as hip implants.

The clarity of MAR images is addressing the challenges posed by metal artifacts, helping clinicians accurately contour targets and critical organs.

MAR offers:

Exceptional image quality.

MAR is based on the latest in GE Healthcare smart technology, which uses a novel three-step, sinogram-based iterative algorithm.

Streamlined workflow.

MAR requires only one scan, making the process of obtaining a corrected image fast and efficient.

Dose conscious.

MAR requires only one acquisition.

Patient comfort.

The efficient, single-scan process helps to reduce patient time inside the scanner.

Versatility.

MAR is designed to enhance clarity across a range of images including scans of hip implants, dental fillings, screws and other metal objects.

1 B7880CH

72kW Option

The 72kW power option upgrades the maximum allowable mA selection of the on-board high frequency generator by 40% from 400 mA max to 560 mA, or 600mA with cardiac options. More mA can be used to image large patient or at faster rotation times you can maintain the



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Qty	Catalog No.	Description
		mAs prescribed.
1	B7810LW	0.5 sec VariSpeed Scanning option VariSpeed Scanning Option Enables 0.5, 0.6, 0.7, 0.8, 0.9, 1.0 second rotation acquisitions
1	B77292CA	CT Service Cabinet
		Service cabinet for system accessories storage
1	E4502KY	10 KVA Partial UPS for CT LightSpeed and LightSpeed PRO
		The 10 KVA Partial UPS has been specifically designed to coordinate with GE Healthcare CT and 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.
		 Critical circuits in the gantry and table remain powered which facilitate the safe 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 operator to to complete an orderly shutdown of the system software. 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 Dimensions (H x W x D): 32.7" x 12" x 32" Weight: 350 lbs. Output Frequency: 50 or 60 Hz, auto-sensing
		 ITEM IS NON-RETURNABLE AND NON-REFUNDABLE REMOVAL/DISPOSAL OF OLD UPS IS THE CUSTOMER'S RESPONSIBILITY INSTALLATION AND RIGGING IS NOT INCLUDED CONTACT GE SERVICE FOR START-UP ASSISTANCE
1	E4502AB	90 Amp Main Disconnect Panel for CT The 90Amp CT system main disconnect panel (MDP) serves as the main facility power disconnect



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Qty Catalog No.

Description

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.

o 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)

o 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

o Designed and tested for GEHC CT products Specifications:

o Automatic restart incorporates an adjustable time delay to delay main power until the power has stabilized for 5 seconds o One flush wall mounted remote emergency off pushbutton furnished with each system o UL, cUL and CE labeled

1 E8016AZ

CT Table Slicker with Cushion - 1700 Systems (2-pc Set)
CT Table Slicker with Cushion - 1700 Systems (2 Piece Set)
FEATURES/BENEFITS

· Two-piece, sealed slicker cushion set has comfort pads enclosed inside the slicker cover

13/17



1

W0004CT

4 Days Ct Onsite

4 Days CT TiP Onsite Training

Date: Quote #: Version #: 04-05-2017 PR10-C81388 15

Qty Catalog No. Description and extender cover Durable, clear PVC plastic cover facilitates faster, more thorough cleanup of blood and Increase system uptime by protecting table from spills and particulate contaminants Thermo-sealed seams and flaps prevent contaminate buildup in hard to clean areas COMPATIBILITY VCT with GT 1700 Table, CT HD750 E8016BA CT Footswitch Slicker - 2000 & 1700 Systems 1 CT Footswitch Slicker - 2000 & 1700 Systems 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 W0100CT 6 Day CT TiP Onsite System Training 1 6 Day CT TiP Onsite System Training CT Onsite Training for a new CT system 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. 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 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. 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. This training program must be scheduled and completed within 12 months after the date of product delivery.



04-05-2017 PR10-C81388 15

Qty	Catalog No.	Description
		Four Days CT Onsite Training provided from 8AM to 5PM, Monday through Friday. Includes T&L expenses. Days provided consecutively.
		This training program must be scheduled and completed within 12 months after the date of product delivery.
1	R23053AC	Standard Service License
		GE Healthcare has reclassified its service tools, diagnostics and documentation into various classes (please refer to the Service Licensing Notification statement at the beginning of this Quotation). The Standard License provides access to service tools used to perform basic level service on the Equipment and is included at no charge for the warranty period.
1		Rigging NonProducts
1		Revels Rigging
		Quote Summary: Trade in of Siemens Sensation 64
		Total Quote Net Selling Price \$415,266.50
		(Quoted prices do not reflect state and local taxes if applicable. Total Net Selling Price Includes Trade In allowance, if applicable.)



04-05-2017 PR10-C81388

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Options

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

Qty	Catalog No.	Description	Ext Sell Price	
1	E6315JE	Revolution EVO** 32 (64 OLR) DIACOR RTP Flat Tabletop for CT and PET/CT Systems - RT16, DVCT, Disc 600/690, HD750 and VCT	\$12,000.00	X
		DIACOR RTP Flat Tabletop for CT and PET/CT Systems- RT16, DVCT, Discovery PET/CT 600, 610, 690, 710, HD750, and VCT		
		Diacor Radiation Therapy Planning Overlay For GE Healthcare Global Tables, Model 1700, 2000 and PET/CT		
		The Radiation Therapy Planning Overlay, or "CT Overlay", provides a secure flat surface for CT Simulation applications, consistent with the treatment couch, for accurate and reproducible patient positioning.		
		FEATURES/BENEFITS		
		o Carbon fiber construction with foam core provides durable, light-weight device with outstanding imaging properties o Varian Exact Technology and Indexing Immobilization Patient Positioning system along entire length of the overlay o Designed specifically for GE Healthcare's Global Table o Easily locks and unlocks from the CT Table, providing easy transition between therapy and diagnostic procedures		
		INCLUDED:		
		o Carbon Fiber CT Overlay with locking accessories o Two Varian Exact Couch Indexing Bars o One Varian Respiratory Gating Interface Plate and associated mounting hardware		
		SPECIFICATIONS:		
		Weight: 30 lbs. (13.61 kg) Length: 85.25 in. (217.17 cm) Width: 20.87 in. (53.0 cm) Height: 1.62 in. (4.12 cm)		
1	E8819KA	Varian RPM Respiratory Gating Device, GEHC installed	\$55,200.00	X
		Varian RPM with install		
1	E8505VA	LAP DORADO 3 Red wall system W/ CARINAnav	\$42,600.00	X
		The DORADO 3 laser system is designed for patient positioning		

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04-05-2017 PR10-C81388

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Qty Catalog No. Description Ext Sell Price

in radiotherapy and radiological diagnostics, especially CT simulation. The aim is to mark the patient by projecting laser lines so the patient can be positioned reproducibly at the radiotherapy equipment and radiological devices; CARINAnav is an input and control system that is used to operate the LAP laser systems on radiological equipment and functions as an interface between the virtual simulation software and the LAP

laser system.

(Quoted prices do not reflect state and local taxes if applicable. Total Net Selling Price Includes Trade In allowance, if applicable.)

Appendix B Equipment Comparison Table and Brochures

Equipment Comparison

	EXISTING EQUIPMENT	REPLACEMENT EQUIPMENT
Type of Equipment (List Each Component)	Computed Tomography (CT)	Computed Tomography (CT)
Manufacturer of Equipment	Siemens	General Electric (GE)
Tesla Rating for MRIs	NA	NA
Model	Somatom Sensation	Revolution EVO
Serial Number	54493	TBD
Provider's Method of Identifying Equipment	CT #1	CT #1
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	NA	NA
Mobile Tractor Serial Number/VIN #	NA	NA
Date of Acquisition of Each Component	2001	2017 (est.)
Does Provider Hold Title to Equipment or have a Capital Lease?	Title	Title
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (including construction, etc.)	Unknown	\$1,065,267
Total Cost of Equipment	Unknown (approximately \$1.6M)	\$455,267
Fair Market Value of Equipment	\$40,000	\$455,267
Net Purchase Price of Equipment	Unknown (approximately \$1.6M)	\$415,267 (\$40K trade in allowance)
Locations Where Operated	VBEA	VBEA
Number Days in Use to be Used in N.C. Per Year	365	398
Percent of Change in Patient Charges (by Procedure)	%0	%0
Percent of Change in Per Procedure Operation Expenses(by Procedure)	%0	%0
Type of Procedures Currently Performed on Existing Equipment	Computed Tomography(CT)	NA
Type of Procedures New Equipment's Capable of Performing	NA	Computed Tomography (CT)

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clearly visualize the complex inner ear bones and joints. Siemens CARE dose reduction is also featured second. Like the Sensation 40 Slice, the Siemens Sensation 64 slice offers a very high routine isotropic resolution of 0.33mm, allowing it to visualize the smalles pathology with outstanding quality. The z-UHR The Siemens Sensation 64 was the first CT scanner with the ability to take 192 images of the heart per The Siemens SOMATOM Sensation 64 Slice CT is the flagship of the award-winning Sensation series. option on the Siemens Sensation 64 offers an exceptional 0.24mm isotropic resolution, allowing it to on the Sensation 64.

Features

0.33mm isotropic resolution (standard)

0.24mm isotropic resolution (with z-UHR option)

Cardiac imaging rotation time of .33 seconds

UDF detector

Spiral artifact-free imaging

STRATON X-ray tube technology

z-Sharp technology

Routine exam detection of soft plaques

C-Arm Comparisons **Download** Now! Comparisons Your Handy Guide to Models. Manufacturers and More Addantis

Extend the life of Your Medical Imaging Equipment or Replace it? Download eBook Now! Explore the Steps...

70% reduction in radiation dose

Sub-millimeter coverage: 87 mm/s

Data Acquisition (slices/rotation): 64

0 MHU X-Ray tube: STRATON with 5 MHU/min cooling rate

Generator peak power: 80 kW

CARE Dose4D

Specifications

SafeCT Low-dose Solution

Configuration: Multislice helical

of slices: 64

Power: 380-480 VAC, 3-phase, 63-111 kVA

Siting Requirements: 24 m2 (floor space needed)

X-Ray Tube

X-Ray Tube Anode

Heat storage, hu (X-ray tube anode) 0.6 MHU with 5 MHU/ min heat dissipation

Heat dissipation rate, hu/min (X-RAY TUBE) 5,0,000

Tube cooling (X-ray tube anode) Chilled water

Tube focal spot, mm (X-ray tube anode) 0.6 \times 0.7, 0.8 \times 0.8 \times 1.2

Image Processing

CPU: Multiple Intel-based servers with Dual Pentium Xenon

Scan fovs: 50 cm (Standard); 70 cm (Optional)

Image reconstruction matrixes: 512 x 512

DICOM 3.0 Compatible (Power Needed, VAC) Yes

Reconstruction time

Per slice, sec (Reconstruction time) 0.06

For localization scan, sec (Reconstruction time) Real time

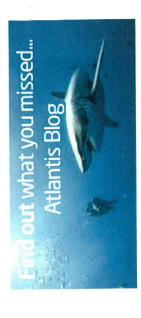
Display

Helical Scanning: Yes

Max scan time: 100 seconds

Max scan volume: 157 cm

Spatial resolution: 30 lp/cm







2/4

Pitch: 28.2-128 freely selectable

Reconstruction time per image: 0.06 seconds

Monitor: 18 inch LCD

Matrixes: 1024 x 1024

Range of ct numbers: -1,024 to +3,071

Image enlarging scale: Yes

Max # slices displayed simultaneously: 64 slices

Image storage

Hd capacity: 446 Gigabytes

No. online images: 260000

Archive: CD-R, MOD

Scoring of Coronary Artery Calcification: Yes

Performance

Minimum interscan time: 0.25 seconds

High-contrast spatial resolution 0% mtf: 30 lp/cm

50% mtf, lp/cm (PERFORMANCE) 15

Low-contrast resolution, mm at % at <=4 rads: 5 mm at 0.3% at 2 rads

Sound, % at <= 2.5 rads: 0.29

Generator

Output: 80 kw

Kvp range: 80,100,120, 140

Ma range: 28 (Imaging System)

Gantry

Geometry: Continuous rotate, low-voltage slip ring

Detector (Scattered Light): UltraFast Ceramic with adaptive array detector

Rows: 64

Elements/row: 672

detection channels: 64 x 1,344

Rotation times(sec 360): 0.37,0.42,0.5,0.75,1, 1.5 seconds; Optional: 0.33 seconds

Partial: 0.25,0.28, 0.33 1

X-ray fan beam angle: 54.4 degrees

Gantry angle: ±30 degrees

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Gantry size (height x width x depth): 199 x 89 x 222 cm

Gantry weight: 2100 kg

Gantry opening: 70 cm

Scan localizer: Laser

Software/ Technology

(CT/MRI/PET); syngo advanced LungCare; syngo 3-D VesselView; syngo Fly Through; syngo Argus; Other Attributes: SureView; CARE Dose 4-D; HeartView CT; syngo Perfusion; CARE Vision CT fluoroscopy; CARE Bolus; syngo Osteo; syngo Dental; syngo Pulmo; syngo Image fusion syngo I

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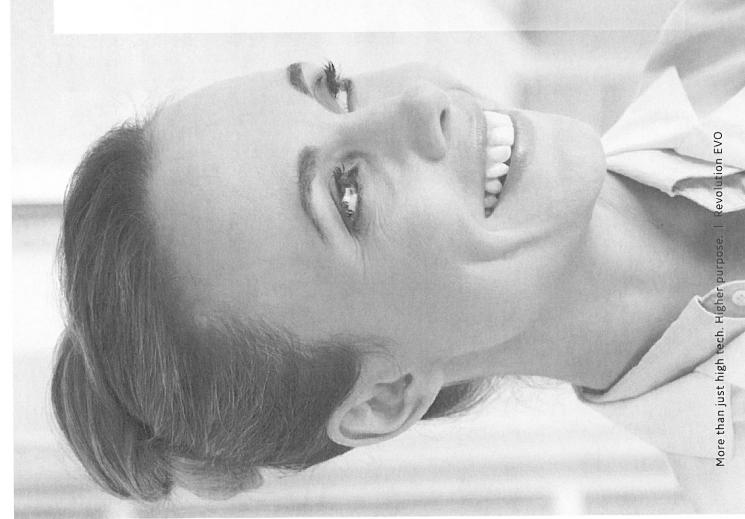
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Today's healthcare environment is about creating new solutions to pressing needs. It's about understanding how one CT exam can improve patient outcomes while lowering the cost of providing care.

Simple and fast, CT is arguably the most valuable diagnostic imaging tool. Yet its capacity to improve the health of the world is far from tapped.

The Revolution" family of CT scanners helps you redefine what's possible with CT. Designed with your needs in mind, each Revolution product in the family is designed to deliver four key benefits: diagnostic confidence, patient care, financial performance and clinical excellence.

All revolutions start somewhere. Our revolution began with the Revolution CT system—designed from the ground up for pioneering the future of CT.

The Revolution family has since grown to include Revolution EVO, a CT system that helps you easily expand your capabilities as your needs evolve.



Benefits

Revolution EVO. Designed with purpose.

Revolution EVO is designed with the purpose of operating in the reality of now, while anticipating the challenges of tomorrow.

It's designed to support the widest variety of patients and applications, from complex trauma or cardiac cases, to large patient backlogs in busy emergency departments that strain workflows and resources.

The design of Revolution EVO is made for institutions that are unable to sacrifice advanced capabilities such as high resolution for daily productivity. It is well suited for those who need to provide the lowest dose possible. And it provides options to expand your referral physician base and the services you provide to your community.

Revolution EVO is designed for you.

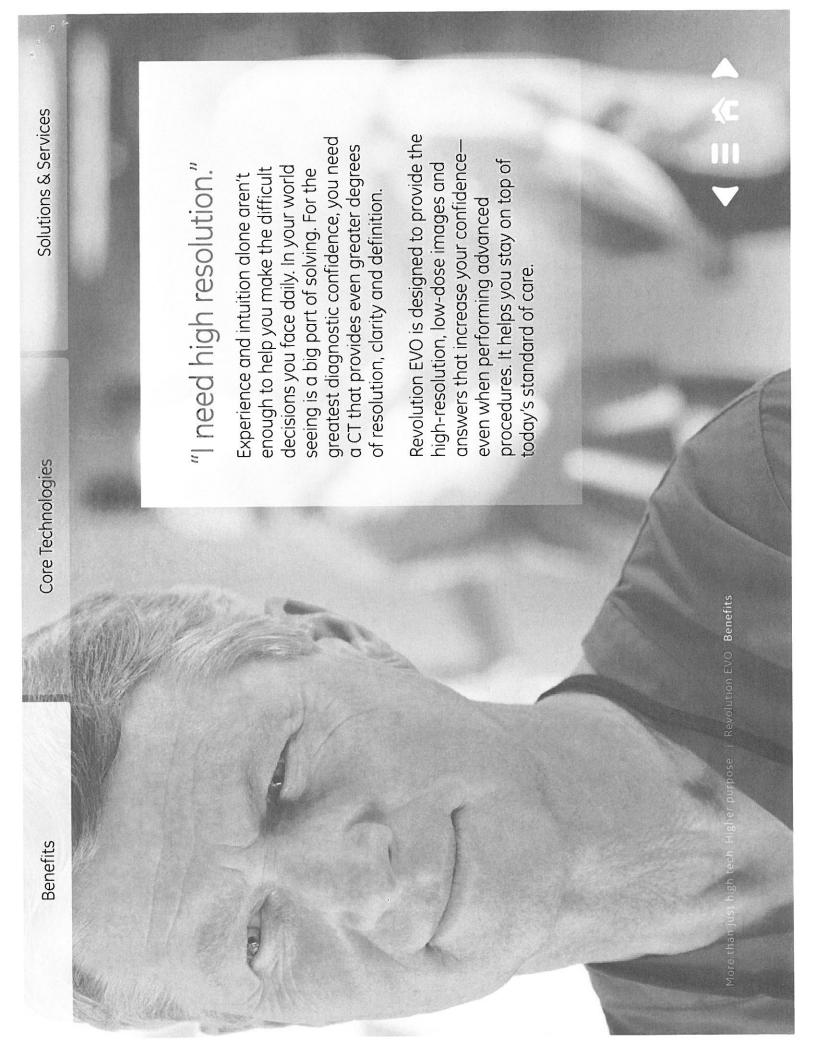


volution EVO

More than just high tech. Higher purpose.

Benefits



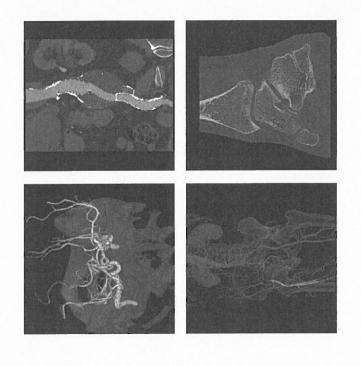


Increase in spatial resolution

Clarity Imaging System Available with ASiR-V" advanced reconstruction

Helping you make a confident diagnosis is our mission, and image clarity is a big part of that. Revolution EVO gives you the image clarity you need to see fine anatomical details, providing a pathway to a quick, confident diagnosis. And with the available ASIR-V option, Revolution EVO also improves your ability to visualize with up to 135% improvement in low-contrast detectability. Delivering vastly improved image quality across the entire body enables you to broaden your clinical applications and potentially improve treatment paths for diverse patient needs.

Revolution EVO delivers high spatial resolution thanks to its redesigned Clarity Imaging System. It features the Performix." 40 Plus tube with ultra-stable dual focal spots, the GE-proprietary HiLight detector, and the low-noise Clarity data acquisition system inherited from our Revolution CT.



Low contrast detectability (LCD), image noise, spatial resolution and artifact were assessed using refe using the MITA CT IQ Phantom (CCT183, The Phantom Laboratory), using model observer method.



"I need to make low dose routine."

Diagnostic images at the right dose add up to great care. That's why it's essential for you to limit your patients' radiation exposure to just what's necessary. To do that, you need a CT that makes it easier for you to lower radiation dose without making it harder to make the right diagnosis.

Revolution EVO delivers several dose-lowering capabilities. Our innovative ASiR-V iterative reconstruction method is designed to reduce noise levels, improve low-contrast detectability and reduce dose by up to 82% in routine imaging for all exams and all patients.

In addition, a comprehensive collection of Smart Dose technologies helps you monitor, measure and manage your dose delivery and select the optimum parameters for low dose and diagnostic images.

task, patient size, anatomical location, and clinical practice. A consultation with a radiologist ontrast Detectability (LCD), Image Noise, Spatial Resolution and Artifact were assessed using the MITA CT IQ Phantom (CCT183, The Phantom Laboratory), using model observer method. eference factory protocols comparing ASIR-V and FBP. The LCD measured in 0.625 mm slices and tested for both head and body mode and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clim mage quality as defined by low contrast detectability, in clinical practice, the use of ASIR-V may reduce CT patient d ASIR-V is an option on some configurations.

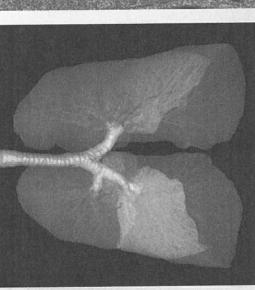
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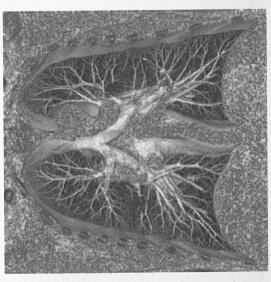




Up to 82% reduced dose.

In routine imaging, ASiR-V has been shown to reduce dose by up to 82% compared to standard FBP reconstruction at the same image quality.²





Ultra-low dose chest exam, 0.08 mSv, reconstructed using ASiR-V. This exam was acquired at 80 kV and 6 mAs and CTDIvol of 0.17 mGy. Effective dose estimated using an adult chest factor of 0.014xDLP (AAPM Technical Report 96, 2008).

'ASiR-V is an option on some configurations.

ference 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 10 Phantom (CCT183, The Phantom Laboratory). and a physicist should be made to determine the appropriate dose to obtaindiagnostic image quality for the particular clinical task



"I need to help more patients."

Leading a radiology department isn't easy, especially these days. You want to help your patients, the community and your institution. As new clinical and financial models evolve in healthcare, you need a CT that can help you attract new referring physicians, and grow the services you offer and the patients you serve.

Revolution EVO is designed to help you compete in your market by helping to manage the health of your patient population today with precision, efficiency and the right dose. ASIR-V low-dose capabilities make it ideal for pediatric scans, oncology and chronic disease follow-up¹. At the same time, Revolution EVO gives you the flexibility to expand your services to the fastest growing procedures like advanced coronary CCTA and TAVI planning.



Lung cancer screening

Low-dose CT lung cancer screening reduces lung cancer deaths by 20% in high-risk patients.¹

We're proud to be the first CT manufacturer with an indication for low-dose CT lung cancer screening.^{2,3} Using qualified GE CT scanners and our new low-dose CT lung cancer screening protocols, you can increase early detection in high-risk patients and help prevent a substantial number of lung cancer related deaths.⁴

GE low-dose CT lung cancer screening protocols are tailored to the CT system, patient size and the most current recommendations from a wide range of professional medical and governmental organizations.

Implementing a low-dose CT lung cancer screening program gives you the ability to change lives in your patient community but also has the potential to dramatically increase the demands of your radiology department and beyond. Ask us how we can help.

iced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening, N Engl J Med 2011; 365:395-409. see gehealthcare.com/lungscreening for a complete list of qualified GE CT scanners and indications for use. The National Lung Screening Trial Research Team. Rec

Not yet CE marked. For countries that require CE marking, this product cannot be placed on the market or put into service until made to comply with the Medical Device

Moyer V. Screening for Lung Cancer; U.S. Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2014; 160:330-338.

ore than just high tech. Higher purpose. I Revolution EVO Benefits



Advanced Applications powered by AW1

Improve your capabilities across care areas.

Emergency & Vascular

Scan trauma patients quickly and catch arterial phase enhancement easily without sacrificing image quality, with up to 175 mm/sec acquisitions enabled by high-pitch helical IQE and available 0.35 second rotation speed.

Fast exam processing is enabled by zero-click bone segmentation, one-click stenosis measurement and semi-automated thrombus segmentation.

Perform stroke assessment scans with 140 mm perfusion shuttle technology and assess patient status quickly with Perfusion 4D.

Stroke VCAR provides simplified workflow for comprehensive aneurysm and hematoma analysis.

Oncology and Chronic Disease

Revolution EVO with ASIR-V enables ultra-low-dose imaging so that you can confidently provide a high level of care to those patients who require multiple scans or frequent follow-up.²

OncoQuant" automates oncology workflow from your PACS with robust imaging tools for easy comparisons over time and efficient follow-up exams.

Lung VCAR segmentation and reporting provide a more productive reading workflow with automatic processing for fast reviews and easy follow-up comparisons.

Colon VCAR makes reading CT colonography easier by detecting colonic lesions with electronic cleansing and correlated 2D, 3D and 360 degree dissection views.

Hepatic VCAR makes liver segmentation and visualizing lesion changes over time easier with exceptional flexibility and performance.

Improved patient experience

Fast scanning for patients large and small.

With the increased weight limit of the Revolution EVO patient table and the improved low-contrast detectability and noise performance of ASiR-V², you can image patients weighing up to 675 lbs, and obtain diagnostic image quality with reduced noise and improved contrast resolution.

Pediatric patients present a different set of challenges. For these patients, speed and low dose are critical. Fast, up to 175 mm/sec acquisitions enable a reduction in breathing artifacts, and ASiR-V ultralow-dose capabilities allow you to image these patients confidently?

Smart Cardiac technologies³

Set up complex cardiac procedures quickly, reliably, and repeatedly.

With Revolution EVO, a single acquisition with just one injection is all that's needed to obtain high-quality images of the entire aorta and coronaries for TAVI/TAVR planning and follow-up. Freeze coronary motion in higher-heart-rate patients with an effective temporal resolution of 29 msec delivered by SnapShot" Freeze. Easily complete complex cardiac exams in as few as five beats with SnapShot Assist, and significantly reduce dose in coronary imaging with SnapShot Pulse prospective gating.

Not all AW applications are available in all regions.

²ASiR-V is an option on some configurations.

³Not all Smart Cardiac technologies are available on all configurations.



tual results may vary depending on the circumstances, including but not limited to, exam type, nical practice, and image reconstruction technique. This information was based on a simulation ng the GE Healthcare Optima" CT660 device and is presented for illustrative purposes only.

re than just high tech. Higher purpose. I Revolution EVO Benefit

"I need to accomplish more in my day."

The only thing you can predict for sure about your workday is how unpredictable it will be. Unanticipated complex exams, large numbers of emergency department exams, add-on patients and patients who arrive late all put pressure on you to get more done in your day.

You need a CT that provides the best images and helps you and your staff get through the chaos calmly and efficiently. Revolution EVO is designed to help you manage unpredictable patient loads and unexpected exam demands—quickly and compassionately.

Revolution EVO features the latest in Smart Flow technologies designed to help you improve productivity by streamlining user workflow and access to information. With more intelligence and automation from patient preparation through post processing, you can perform more studies in less time and manage your patient flow up to 40% more efficiently.¹



Up to 40%

Improved productivity¹

Confirm images Release patient up to 40% faster Confirm images Release patient Scan with standard image reconstruction Scan with real-time image reconstruction Tasks at the operator console Select patient from worklist Select protocol Confirm scout settings Walk to operator console Start exam Revolution EVO workflow Traditional workflow Move patient into position Set landmark Tasks at the gantry Patient on the table

Actual results may vary depending on the circumstances, including but not limited to, exam type, clinical practice, and image reconstruction technique. This information was based on a simulation using the GE Healthcare Optima" CT660 device and is presented for illustrative purposes only



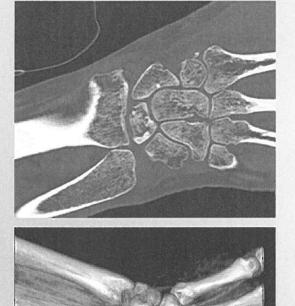


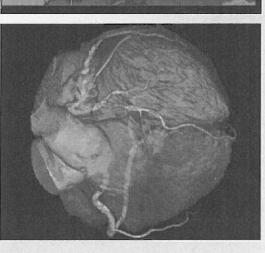
Clarity Imaging System

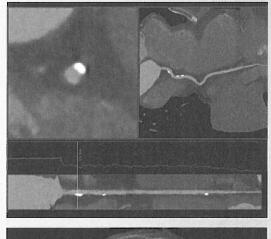
See clearly down to 0.28 millimeters.

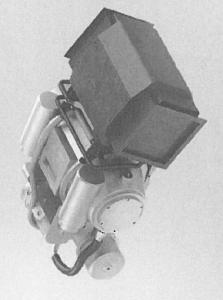
For Revolution EVO we redesigned the entire imaging chain. It features the new Clarity detector inherited directly from the breakthrough technology introduced on Revolution CT.

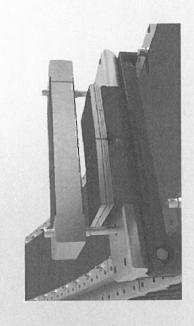
The result: a CT system with the best spatial resolution in its class—20% higher than previous GE systems—to clearly show you details as small as just 0.28 millimeters.

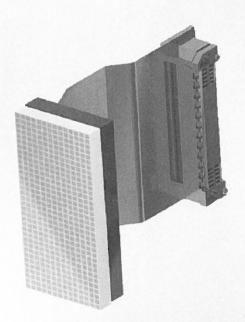












Performix 40 Plus tube

At the beginning of the Clarity imaging chain, the Performix 40 Plus tube delivers exceptional performance. Its stable dual focal spot improves precision, and its 0.35 second routine rotation speed enables faster scan times. This may allow for shorter breath holds, may reduce the need for sedation, reduce motion artifacts from patient and organ movement, and enable faster workflow for all applications.

HiLight Clarity detector

Inherited directly from our breakthrough Revolution CT system, the Clarity detector is the heart of Revolution EVO. With its high-resolution imaging capabilities, you can see details as small as 0.28 mm. The Clarity detector delivers improved dose efficiency and signal-to-noise ratio as well, plus large coverage with z-axis uniformity.

Integrated Clarity data acquisition system

Thanks to its revolutionary, patented design, the data acquisition system is integrated directly onto the photo diode. This reduces the size of the data acquisition system by 75%, reduces noise by 44%, and lowers power consumption by 90% compared to previous-generation systems.

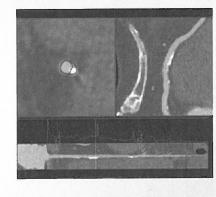


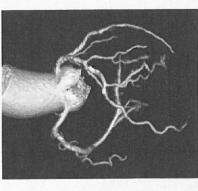
ASiR-V

Routinely image with up to 82% less dose.¹ Achieve twice the spatial resolution.

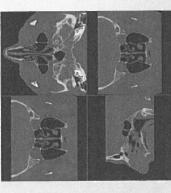
Combining the speed of ASiR with added capabilities from Veo" full model-based iterative reconstruction, the novel ASiR-V reconstruction algorithm brings low dose and improved quality to routine imaging.

Leveraging our extensive statistical modeling system, ASiR-V focuses primarily on more advanced noise and object modeling than ASiR with added physics modeling to help reduce noise, improve low-contrast detectability, and reduce artifacts. By focusing on these iterative reconstruction components, ASiR-V can significantly improve image quality at reconstruction speeds similar to filtered back projection (FBP).²





Cardiac case with calcifications and plaque ID. DLP: $31\,\text{mGy}, 0.4\,\text{mSv}$. Effective dose estimated using an adult chest factor of 0.014xDLP (AAPM Technical Report $96,\,2008$).





Sinus case combining low dose and high spatial resolution. DLP: 29.4 mGy, 0.06 mSv. Effective dose estimated using an adult head factor of 0.0021xDLP (AAPM Technical Report 96, 2008).

ASiR-V

Routinely image with up to 82% less dose.¹

Using ASiR-V, you can reduce dose up to 82% in routine imaging as compared to standard high-dose filtered back projection reconstruction at the same image quality.²

Smart Dose Technologies

Automatic exposure control and more.

Intelligent technology designed to acquire high-quality images using lower doses of radiation, helping you provide more accurate diagnoses and lower exposures for patients. Lower patient dose while still acquiring the high-quality images needed for your accurate diagnoses using dose management tools such as CT 4Kids doseoptimized pediatric reference scan protocols, 3D dose modulation, organ dose modulation, Dose Check, DICOM DRSR, and more—all at your fingertips. Revolution EVO is compliant with the NEMA XR 25 and XR 29 standards.

DoseWatch

Dose management solution.3

Analyze, identify, and optimize patient dose with web-based dose monitoring software. Keep dose levels as low as reasonably achievable (ALARA) while producing sharp, focused diagnostic images. Track and monitor patients' cumulative radiation dose over time and take steps to prevent excessive radiation dose.

Decrease dose up to 82% with ASiR-V

Dose Check

Pre-scanning monitoring and alerts.

Receive notifications and alerts if your predetermined dose levels will be exceeded. You can correct and confirm the right settings before scanning to avoid unnecessary radiation dose to your patient.

GE Blueprint Benchmark

Comprehensive radiation management.

Compare your current dose management performance to industry guidelines and best/better practices. Receive the insights, suggestions, and strategies you need to build an effective dose management program in your hospital or healthcare system.

SSIBA Is an portion on some configurations

analyze and report practice-level data for GE CT systems.

DoseWatch Explore is a web-based, cloud deployed introductory dose management software to track,

A first step in a comprehensive

dose management program.34

DoseWatch" Explore

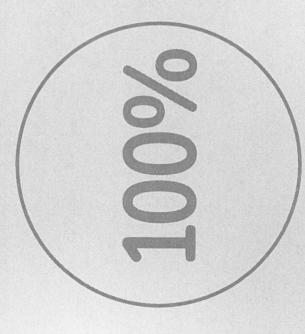
mage quality as defined by low contrast detectability. In clinical practice, the use of ASIR-V may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist a physicist should be made to determine the appropriate dose to obtaindiagnostic image quality for the particular clinical task. Low Contrast Detectability (LCD), image Noise, Spatial Resolution and Artifact were assessed using eference 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 Phantom Laboratory), using model observer method

4sk your GE sales representative for details about these technologies.

*Not available for sale in all regions.

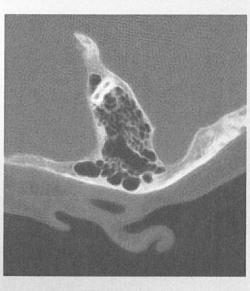
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Up to 100% better spatial resolution.

ASiR-V has the capability to improve spatial resolution compared to FBP by allowing the reconstruction of higher-resolution images with no increase in image noise.^{1,2}



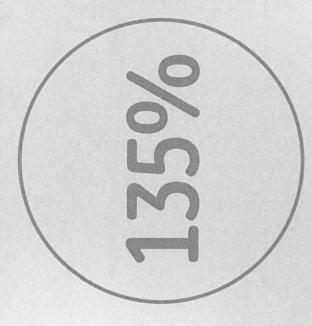
ASiR-V



An inner ear case. The ASiR-V reconstruction clearly demonstrates better spatial resolution with similar image noise.

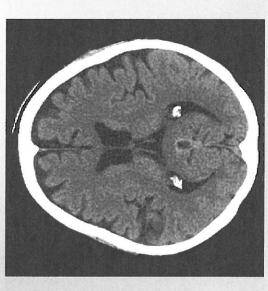
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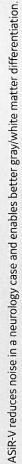
Up to 135% improved low-contrast detectability.

ASiR-V improves the detectability of low-contrast objects by up to 135% when compared to corresponding FBP reconstructions at the same dose.^{1, 2}



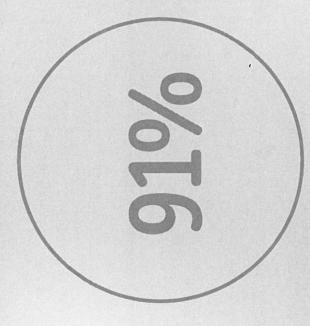
ASIR-V

FBP



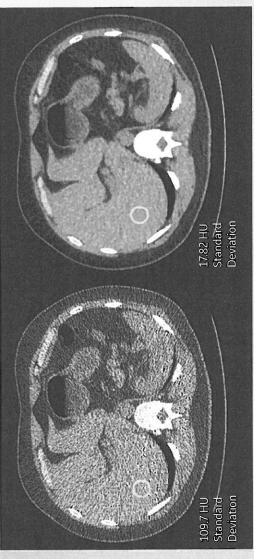
4SiR-V is an option on some configurations.





Up to 91% less image noise.

Depending upon the scan technique and reconstruction parameters, ASiR-V can significantly reduce electronic image noise compared to FBP at the same dose.^{1, 2}

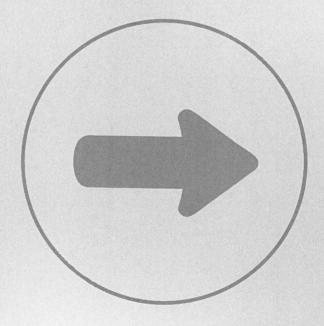


~84% noise reduction ASiR-V

ASIR-V reduces streaks and noise in clinical images. The case shows a low-dose abdomen scan where ASIR-V significantly reduced low-signal streaks and image noise. using the MITA CT IQ Phantom (CCT183, The Phantom Laboratory), using model observer methoc

ASIR-V is an option on some configurations.



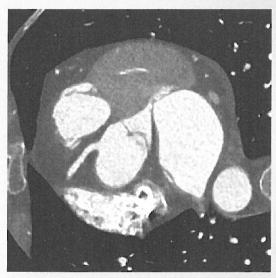


Less streak artifact.

ASiR-V has the capability to reduce low-signal artifact, such as streak artifact, compared to FBP^{1, 2}



Without ASiR-V



With ASiR-V

ow contrast detectability (LCD), image noise, spatial resolution and artifact were assessed using refer using the MITA CTIQ Phantom (CCT183, The Phantom Laboratory), using model observer method

ASIR-V is an option on some configurations.

Smart Technologies

Modern imaging intelligence.

Smart Flow

reconstruction during the scan and access to advanced applications Flow technologies enable fast, hands-free patient positioning, exam prescription from the patient's side, integrated injections, real-time Designed to help you improve productivity and patient experience by streamlining your workflow and access to information, Smart right on the console.

Real-time reconstruction

the extent of the injuries is unknown, you can prospectively prescribe reconstructed and available per second. For trauma patients, when up to 10 multiphase reconstructions and easily prioritize which one Reconstruction of images in real time helps you focus solely on the diagnosis of your patient. With Image Check, up to 55 images are you need first.

1Q enhance pitch booster

Scan a chest in as fast as two seconds with 175 mm/sec acquisition speed to help shorten patient breath-holds while maintaining image quality.



Main screen

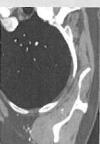
instruction video



Patient worklist



Protocol selection



Without pitch booster. Good exam quality. Slow pitch.



Good exam speed. Fast pitch.



Without pitch booster.



Good exam quality and speed. With pitch booster. Fast pitch.



Smart Cardiac

Set up and perform complex cardiac procedures quickly, reliably, and repeatedly with Smart Cardiac tools on the Advantage Workstation.

SnapShot Assist

Easily complete cardiac exams in as few as five beats with SnapShot Assist, which advises you of the best acquisition technique based on the patient's heart rate and BMI.

SnapShot Pulse

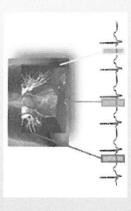
Prospective gating with SnapShot Pulse allows for significant dose reduction in coronary imaging as compared to an ECG-gated helical acquisition mode.

SnapShot Freeze

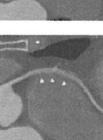
higher-heart-rate coronary CT exams. It delivers a 58 msec-equivalent Reducing motion blurring in vessels by up to a factor of six, SnapShot Freeze facilitates your diagnosis by freezing coronary motion even in gantry speed with an effective temporal resolution of 29 msec.¹



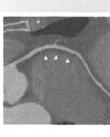
SnapShot Assist



SnapShot Pulse



With



SnapShot Freeze

SnapShot Freeze

Without

Smart MAR¹

utilize CT scans and diagnose disease with greater confidence. Smart Metal Artifact Reduction (MAR) is designed to reveal anatomic details obscured by metal artifacts, helping you

MAR offers the following benefits:

Exceptional image quality

deliver consistent, enhanced image quality that addresses MAR uses a three-stage, projection-based process to help both beam hardening and photon starvation artifacts.

Dose conscious

MAR requires just a single scan to create an exceptionally clear image, helping you to deliver dose conscious care.

Streamlined workflow for patient comfort

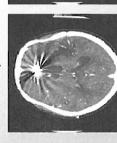
The efficient, single-scan process helps to keep patient time inside the scanner short.

Versatility

MAR is designed to enhance clarity across a range of cases with metal including scans with hip implants, dental fillings, screws or other metal in the body.

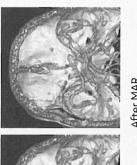
Aneurism clip

Aneurism clip









After MAR

Before MAR

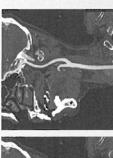
After MAR

Before MAR

Dental fillings

Dental fillings





After MAR

Before MAR

After MAR

Before MAR

Double hip replacement

Single hip replacement





Before MAR

After MAR

Before MAR



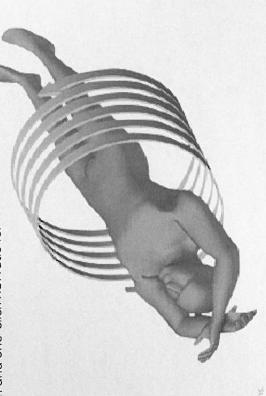
Dual-energy imaging

Simpler scan solutions.

For simple characterization, two-path dual-energy acquisitions on Revolution EVO improve workflow with a solution that's both dose-neutral and fast.

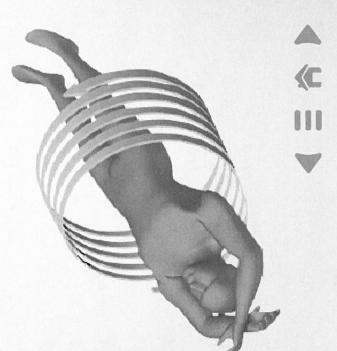
Dual-energy imaging allows easy configuration of back-to-back axial or helical scans of the same anatomy at two different X-ray energies [kVs]. Both scans are performed at half dose with excellent image quality, thanks to ASiR-V iterative reconstruction.¹ The second acquisition can be performed in the opposite direction in a short scan time.

The additionally acquired dual-energy data can be quickly post-processed right on the console or on the Advantage Workstation with easy image registration and one-click ROI ratio for simple analysis.





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← III **→**

Services

Solutions beyond the scanner.

Optimize your investment.

Lift your organization to a new level of performance with our complete portfolio of consulting and support services. GE Healthcare Services will work with you to address your healthcare system's growth, quality and operational excellence, so you can meet your business objectives.

Asset optimization.

Using proprietary software and data analytics, we can help you optimize your maintenance contracts and establish benchmarks for utilization of assets which can help reduce costs and drive productivity.

Patient flow optimization.

We track patient flow from admission to discharge in real time. The ability to capture and analyze this data can help you decrease wait time, reduce costs, and improve the quality and safety of care.

Workforce optimization.

We can help improve workforce utilization across the continuum of care, which can have an impact on the bottom line. All while improving the quality of care and staff satisfaction.

Right dose by design.

Improving dose management starts with a strategy. GE Blueprint helps healthcare organizations build a strategic roadmap for a comprehensive radiation dose management program encompassing leadership, practices and technology. We start with our GE Blueprint Benchmark Assessment to compare and assess your current performance against industry guidelines and best practices to help you balance your dose management priorities and develop your program across your entire healthcare system. Then we partner with you to go beyond meeting compliance and regulatory guidelines to help you improve clinical and quality outcomes.

Flexible equipment financing.

GE Capital, Healthcare Financial Services has the financial expertise, combined with healthcare industry knowledge and resources to provide your organization with a complete range of equipment financing solutions for every stage of your growth.



today—while positioning your institution to rise to the challenges patients and referring physicians with a diversity of applications With Revolution EVO you can get the high resolution you need, make low dose routine, accomplish more in your day and help more patients. It enables you to serve the widest variety of you'll face going forward.

Revolution EVO. More than just high tech. Higher purpose. Contact your GE Healthcare Sales Representative to learn more about Revolution EVO.





www.gehealthcare.com

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter - great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

imagination at work

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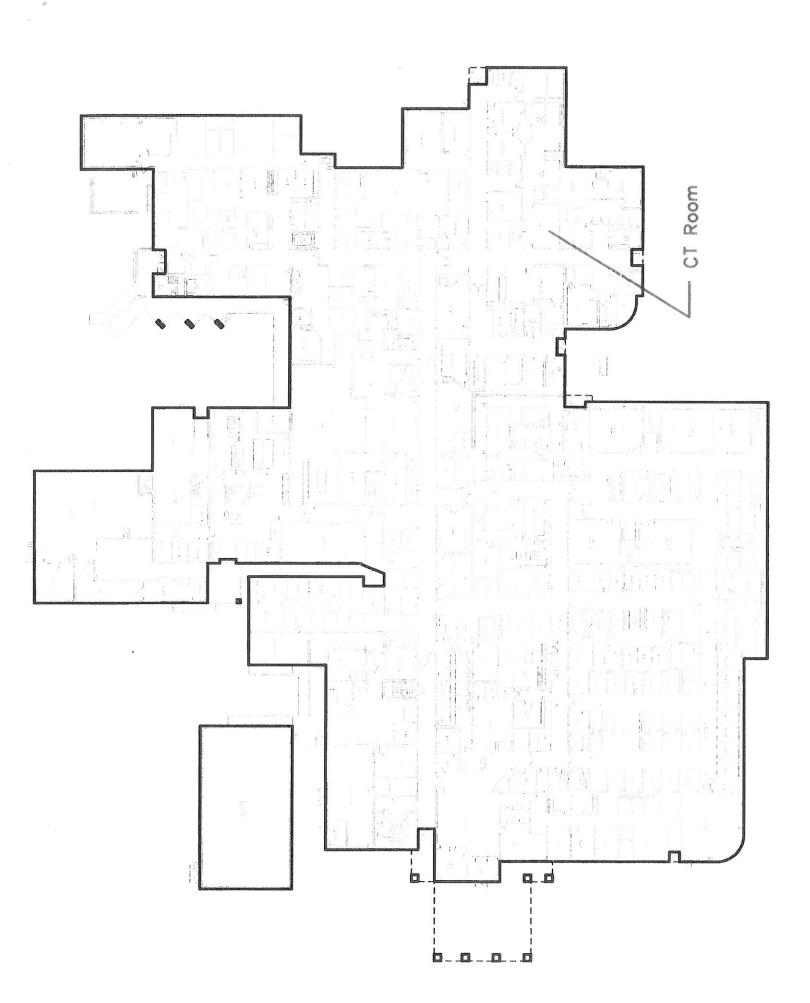
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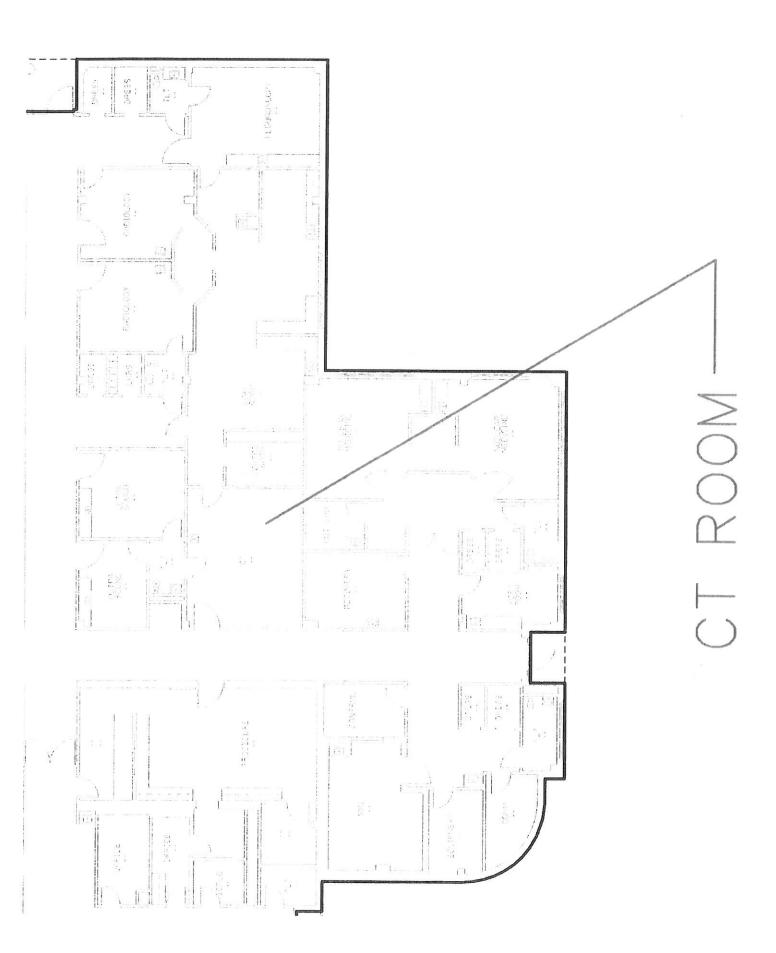
GE Healthcare, a division of General Electric Company.

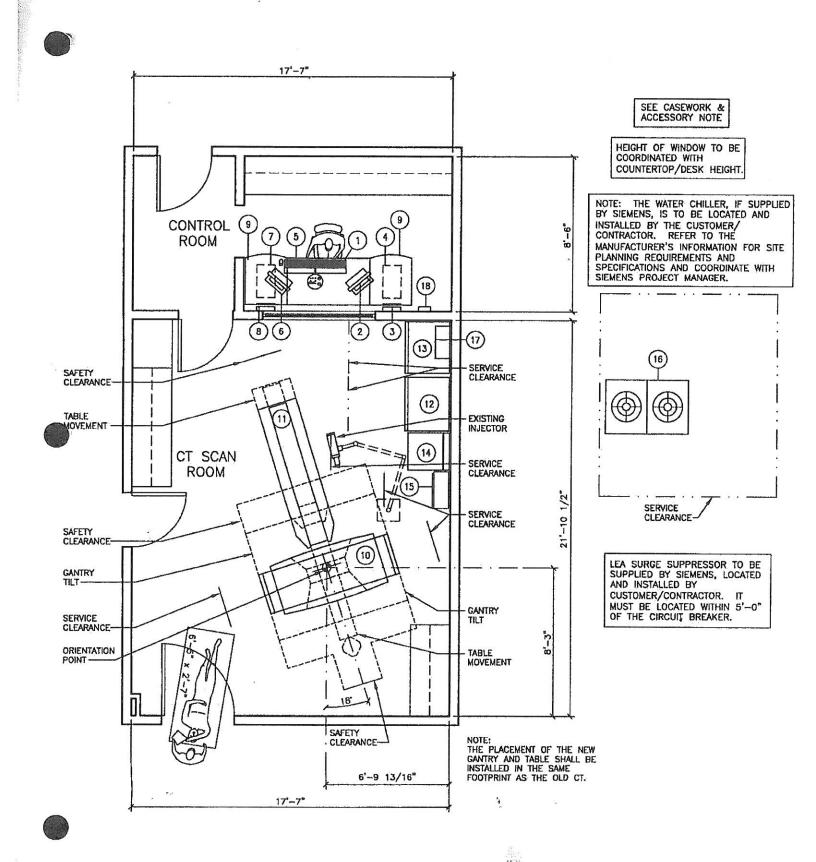
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Appendix C Current and Proposed Drawings





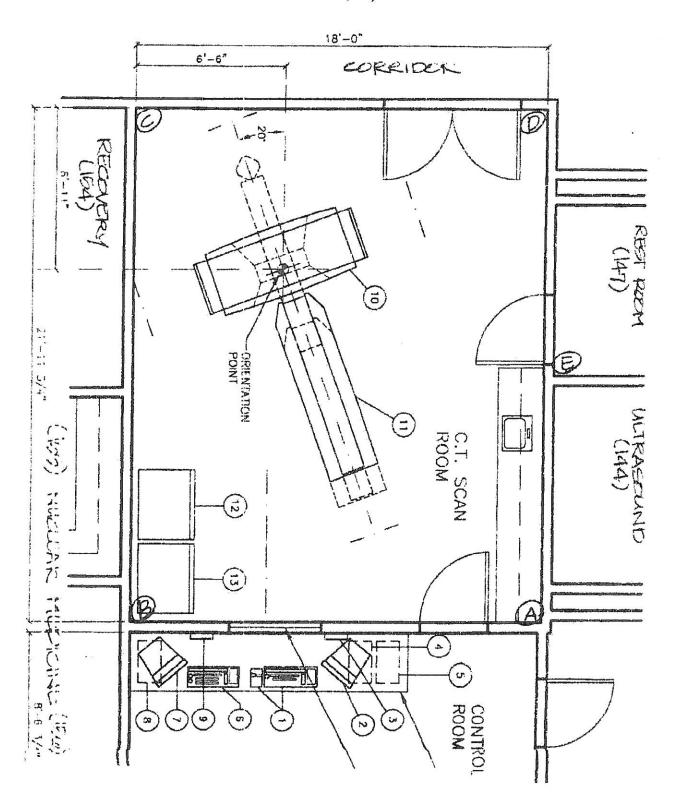




ProPhysics Innovations, Inc. P.O. Box 4374 Chapel Hill, NC 27515-4374 (800) 459-2303 (919) 933-7526 Fax: (919) 678-0887

"Physics Solutions in Medicine & Industry"

Beaufort County Hospital Radiology Department Expansion Room 148 (CT)



Appendix D Capital Cost Sheet

CAPITAL COST SUMMARY

Site Costs		CONTROL TO THE STATE OF THE STA
(1) Full purchase price of land	\$ 0	
Acres 0 Price per Acre \$	*	 :
(2) Closing costs	\$ 0	
(3) Site Inspection and Survey	\$ 0	_
(4) Legal fees and subsoil investigation	\$ 0	_
(5) Site Preparation Costs [Include]		
Soil Borings		
Clearing and Grading		
Roads and Parking		
Sidewalks		
Water and Sewer		
Excavation and Backfill		
Termite Treatment		
Sub-Total Site Preparation Costs	\$ 0	
(6) Other (Specify)	\$ 0	
(7) Sub-Total Site Costs	ļ	- \$ 0
Construction Contract		Ψ 0
(8) Cost of Materials [Include]		
General Requirements		
Concrete/Masonry		
Woods/Doors & Windows/Finishes		
Thermal & Moisture Protection		
Equipment/Specialty Items		
Mechanical/Electrical		
Sub-Total Cost of Materials	\$ 390,000 \$ 260,000	_
(9) Cost of Labor	\$ 260,000	_
(10) Other		- 0 050 000
(11) Sub-Total Construction Contract		\$ 650,000
Miscellaneous Project Costs		1730
(12) Building Purchase	\$ 0	_
(13) Fixed Equipment Purchase/Lease	\$ 415,267	_
(14) Movable Equipment Purchase/Lease	\$ 0	_
(15) Furniture	\$ 0	
(16) Landscaping	\$ 0	_
(17) Consultant Fees		
Architect and Engineering Fees		_
Legal Fees		_
Market Analysis		_
CON Preparation		_
Sub-Total Consultant Fees	\$ 0	_
(18) Financing Costs (e.g. Bond, Loan, etc.)	\$ 0	_
(19) Interest During Construction	\$ 0	_
(20) Other (Specify)	\$ 0	
(21) Sub-Total Miscellaneous		\$ 415,267
(22) Total Project Capital Cost (Sum A-C above)		\$ 1,065,267

Appendix E Existing Equipment Removal Letter

GE Healthcare PO Box 414 Milwaukee, WI 53187

March 22, 2017

David Greenfield Radiology Manager Vidant Beaufort 628 E 12th St Washington, NC 27889

RE: GE Revolution EVO

Dear David.

Thank you for allowing General Electric Healthcare (GEHC) the opportunity to earn your business. Vidant Beaufort is a valued customer and we truly appreciate the partnership we share.

The purpose of this letter is to inform you that General Electric Healthcare will be responsible for removing your existing Siemens Sensation CT as part of your upcoming GE Revolution EVO purchase and estimate the de-installation and removal will be completed at no additional charge to Vidant Beaufort. Vidant Beaufort will be responsible for the cost of any scan room construction/renovation, clearing the rig path, rigging costs, and opening the scan room access panel. We will work closely with your facilities planning department to insure proper timing of the de-installation. The system will be de-installed, removed, and shipped by our GE team to our Goldseal business in Waukesha, WI. We understand and confirm that this unit may not be returned to the State of North Carolina without proper authorization from the North Carolina Certificate of Need (CON) section of DHSR.

Thank you again for the opportunity to earn your business. If you have any additional questions, feel free to call me at any time.

Sincerely,

Nick Bengel Imaging Account Manager, NC General Electric Healthcare 414-238-7008 Nicholas.bengel@ge.com

Appendix F Response to Required Questions

Responses to the Required Questions

1. A comparison of the existing and replacement equipment, using the format in the attached table. Note: If the manufacturer's model and serial numbers for the existing equipment are not provided, the exemption request will not be processed until the numbers are provided.

See equipment comparison table in Appendix B

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

A computerized tomography (CT) scan combines a series of X-ray images taken from different angles and uses computer processing to create cross-sectional images, or slices, of the bones, blood vessels and soft tissues inside your body. CT scan images provide more detailed information than plain X-rays do.

A CT scan has many uses, but is particularly well-suited to quickly examine people who may have internal injuries from car accidents or other types of trauma. A CT scan can be used to visualize nearly all parts of the body and is used to diagnose disease or injury as well as to plan medical, surgical or radiation treatment.

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

See the vendor quote in Appendix A for the specifications and Appendix B for the brochure of the new replacement unit. Brochures for the existing equipment are also in Appendix B.

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

The original purchase order for the existing equipment no longer exist. The original unit was purchased on 2001 for approximately \$1,600,000.

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

The existing equipment was purchased new. A title for the equipment does not exist.

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

Not Applicable. The replacement equipment will be purchased new, not leased.

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

See Appendix A for the complete quote for the replacement equipment from the vendor.

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

See Appendix E for documentation from the vendor that shows the existing equipment will be permanently removed from North Carolina, will no longer be exempt from requirements of the North Carolina Certificate of Need law, and will not be used in North Carolina without first obtaining a new certificate of need.

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

The existing equipment is currently in service and is being used to perform CT scans on patients that need them. In fact, VBEA performed 8,958 CT scans in FY16 on its existing unit.

Appendix G Hospital License and

Documentation of Administrative and Financial Control of Site

State of Aurth Carolina Aenartment of Kealth and Kuman Services Department of Health and Human Services Division of Health Service Regulation

Effective January 01, 2017, this license is issued to East Carolina Health-Beaufort, Inc.

to operate a hospital known as Vidant Beaufort Hospital located in Washington, North Carolina, Beaufort County.

This license is issued subject to the statutes of the State of North Carolina, is not transferable and shall remain in effect until amended by the issuing agency.

> Facility ID: 932963 License Number: H0188

Bed Capacity: 142 General Acute 120, Psych 22,

Dedicated Inpatient Surgical Operating Rooms: Dedicated Ambulatory Surgical Operating Rooms:

Shared Surgical Operating Rooms:

Dedicated Endoscopy Rooms:

Authorized, by:

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

Director, Division of Health Service Regulation



June 5, 2017

Ms. Jane Rhoe-Jones Certificate of Need Section Division of Health Service Regulation NC Department of Health and Human Services 2704 Mail Service Center Raleigh, NC 27699-2704

RE: Vidant Beaufort Hospital's CT Scanner Replacement

Dear Ms. Rhoe-Jones:

Please accept this letter as documentation that I, Harvey Case, President of Vidant Beaufort Hospital (VBEA), do hereby certify, as it relates to the proposed project, that:

- 1. Financial control of the entire licensed health service facility is exercised at the site where the equipment proposed to be replaced is currently located.
- 2. Administrative control of the entire licensed health service facility is exercised at the site where the equipment proposed to be replaced is currently located.

If you require additional information or clarification, please contact Jeff Shovelin, Director of Corporate Planning for Vidant Health at (252)-847-3631. Thank you for your time and attention to this important project.

Sincerely,

Harvey Case President

Vidant Beaufort Hospital