

VA NORTH CHICAGO, IL
PO# 556-B48162

Item No.	Qty	Description
1	1	<p>Senographe Essential Gantry Base System</p> <p>Senographe Essential Diagnostic System Senographe Essential full field digital mammography system provides a comprehensive breast care solution that includes screening, diagnostic and interventional capabilities, with advanced ergonomic design for the technologist, exceptional patient comfort and seamless workflow connectivity. Senographe Essential features the innovative 24x31cm detector, designed to offer enhanced breast coverage in a single image and a fast and efficient workflow. Smaller breasts are also easily imaged in any view with paddles that can slide to both sides of the detector. Senographe Essential offers enhanced image quality for increased diagnostic confidence because of the excellent detector performance at a low dose. Ergonomic design for technologists</p> <ul style="list-style-type: none">• Intuitive user interface• One touch access to preset angulations for quick and easy positioning• Two speed motorized movements for fast and precise operation• Sliding compression paddles can move to the side of the detector for excellent compression of any breast in any view Enhanced patient comfort• Patient friendly design• Easy wheelchair access• Ergonomic integrated bucky Outstanding Image Quality• Enhanced Detective Quantum Efficiency (DQE)• Molybdenum/Rhodium dual track tube• Automatic Optimization of Parameters (AOP) transparently selects all exposure parameters based on breast radiological properties• Three AOP modes enable more flexibility in dose management• Enhanced views with Fine View and improved contrast with Premium View Seamless digital workflow connectivity• Automated Quality Control• Integrated Repeat and Reject Analysis function Senographe Essential Technical Specifications Image Quality Detector DQE• DQE typical values: 70% at 0lp/mm, 61% at 2.0Ip/mm, 24% at 5.0Ip/mm• Measurement conditions: Mo anode track, Mo filter, 28kV, 8.5mR detector entrance dose, 4.2cm PMMA Detector• Detector size: 24x30.7cm• Pixel size (pitch): 100 um• Acquisition dynamic range: 14 bits

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	<ul style="list-style-type: none"> • Image size (XxY): <ul style="list-style-type: none"> – 3062x2394 pixels (large image size) approximately 14MB per image – 2294x1914 pixels (regular image size) approximately 9MB per image • Patented needle structure CsI scintillator single piece construction • Closed loop liquid cooling Tube Technology • X-Ray tube type: Apollon • Anode target materials - Dual track: Molybdenum (Mo), enriched with Vanadium and Rhodium (Rh) • Four focal spots: 0.1 and 0.3 IEC on each target • Target angle: 0 degrees • Maximal high voltage: 49kV • Tube current: <ul style="list-style-type: none"> – Molybdenum target: 100 mA from 25 to 30kV on large focal spot 40 mA from 25 to 30kV on small focal spot – Rhodium target: 62mA from 25 to 30kV on large focal spot 35mA from 25 to 30kV on small focal spot • Anode size (tracks diameter): 100mm • Anode heat storage capacity: 250kj (340kHU) • Anode maximum dissipation: 500W (40kHU/min) • Max casing continuous dissipation: 150W (12 kHU/min) at 104 degrees fahrenheit • Permanent filtration: 0.69mm Beryllium • Weight: 15.4 pounds • X-ray tube assembly: self-encased X-ray tube oil free, lead free, air-cooled head • Tube protection: software monitoring of tube load Grid/Breast Support • Ergonomic breast support for patient comfort • Motorized installation and removal of the grid and breast support for geometric magnification • Breast support material: low attenuation carbon fiber composite • Grid ratio: 5:1 • Grid frequency: 36 lines/cm • Optimized grid motion ensuring no grid structure artifacts in image • Detector to breast support edge-to-edge distance less than or equal to 5mm • Automatic Exposure Automatic Optimization of Parameters (AOP) Fully automatic mode • AOP is a fully automatic exposure system that selects all exposure parameters

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	<p>based on radiological density of the breast for exceptional and consistent image quality: track (Mo or Rh), filter (Mo or Rh), kV, mAs</p> <ul style="list-style-type: none"> • The system identifies the most dense part of the breast to select the appropriate exposure parameters • Three AOP modes are available for more flexibility: <ul style="list-style-type: none"> – "Contrast": dose to patient comparable to screen/film mammography – "Dose": priority is given to dose reduction – "Standard": balances low noise and dose reduction Manual Mode • Manual selection of all parameters: track, filter, kV and mAs Collimator Filters: Molybdenum: 0.030mm; Rhodium: 0.025mm • Field of View (FOV) in detector plane, in cm <ul style="list-style-type: none"> – For standard contact views: 24x31 maximum FOV or 19x23 regular FOV (centered or off-centered left and right based on the paddle inserted) • Field of View (FOV) selection: automatic and manual • FOV size: selected automatically based on paddle or geometric magnification platform used, can be modified manually by using the collimation size button on the tube head • FOV location (left, right, center): selected automatically based on the tube arm angle, can be modified manually by using the collimation position switch on the tube head • Compression and exposure are prevented if the FOV and compression paddle sizes or locations are not consistent • Light centering device: a light automatically switches on when a preset position is reached, at compression start or at paddle insertion; can be turned on with the collimation switch buttons located on the tube head Compression • Compression modes: <ul style="list-style-type: none"> – Motor driven compression up to 20 daN – Manual compression possible up to 30 daN • Dual foot-pedals for column height and compression adjustments • User defined motorized compression force limit: 4 to 20 daN • Minimum force for AOP: 3 daN • Compression speed: 2 speed levels • User can select automatic decompression after exposure to minimize patient time under compression • User-defined maximum decompression height Safety • Gantry locked when compression force applied Positioner

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	<ul style="list-style-type: none"> • Isocentric arm with motorized rotation and vertical movement • Source to image receptor distance: 660mm • Floor to image receptor distance: from 65cm to 150cm • Rotation angle: - 165/185 degrees • Ergonomic handles: two on both sides of the tube arm and two additional handles at the detector level User Interface • Four sets of dual speed switches for rotation and lift movements • Four sets of preset position buttons for quick and easy positioning in CC and M LO • Automatic stop at +/-90 degrees for lateral positions • Collimation buttons on the tube head for field of view size and location • Parameters display <ul style="list-style-type: none"> - Tube arm support rotation angle - Compressed breast thickness (in mm) - Compression force (in daN) - Ergonomic control console - Controls exposure - Provides information on system status - Gives access to advanced parameters for system set-up • Patented automatic view names marking based on breast laterality • View name can be edited at any time before the examination is closed Acquisition Workstation • Small footprint • Time to display processed image (average): 14 seconds • Time between exposures (typical): 12 seconds • Dose calculated and displayed on the image after every exposure (Entrance Skin Dose and Average Glandular Dose) • Dual core HP workstation <ul style="list-style-type: none"> - Memory: 1GB RAM + 4MB L2 cache - Hard disk: 1 internal 250 GB disk, 7200 RPM - Image storage: 15000/25000 large/regular field of view - Port: one Ethernet port 10/100 Mbits - DVI video board • Display (standard) <ul style="list-style-type: none"> - High performance black and white LCD 1MP

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	<ul style="list-style-type: none"> - monitor - 48cm (19") medical grade - 1280x1024 pixels (landscape) - 8 bits display - High luminance - up to 500 Cd/m2 - Contrast ratio: 500:1 - Viewing angle: 170 degrees - Weight: 6.4kg (14.9lbs) - Mounted on a rotating arm for easy in-room access
	<ul style="list-style-type: none"> • Image Presentation <ul style="list-style-type: none"> - Fine View processing provides sharp images with enhanced conspicuity, based on detector physics - 2 options for primary image processing: 1. Thickness Equalization which provides a "film-like" aspect with improved visibility of the skin line 2. Premium View* enhances local contrast - Automatic windowing (window level and window width) - Other features: zoom, roaming, inversion, flip, rotation of images, window width and level setting, annotations and measurement • Un-interruptible Power Supply (UPS) allows to close the examination without loss of information in the case of a power failure Connectivity • DICOM 3.0 platform: <ul style="list-style-type: none"> - Modality Worklist User - Storage Provider - Storage Commitment User - Query/Retrieve User - Basic Grayscale Print User - Verification Provider - DICOM-compliant CD-RW Data Interchange • Connectivity features: customizable Autopush to multiple DICOM databases, Autoprint, Autodelete based on Storage Commitment • Modality Perform Procedure Step User • Connectivity to GE Service for remote diagnostic capability Quality Assurance • Complete quality control program • Automation of quality control tests: Flat Field, MTF, AOP, SNR, CNR • Data can easily be exported for data tracking • Automated Repeat and Reject Analysis Radiation Shield

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	<ul style="list-style-type: none"> • Stand alone or integrated to control console High Voltage Generator 0 Generator type: high frequency single phase power supply • Ripple: <4% from peak to peak • Power: 5kW max • mAs range: 4 to 500 mAs (depending on track, filter and kV) • kV range: 22 to 49kV, in 1kV steps • Generator protection: software monitoring of generator and tube load Power Supply • Input frequency: 50Hz/60Hz • Input voltage: single-phase 200/208/220/240V • APC Smart-UPS 750 VA Standard Configuration • Motorized isocentric gantry • X-ray tube with rotating Mo/Rh anode • 24x31cm flat panel detector • Acquisition workstation <ul style="list-style-type: none"> – CD-RW – LCD display – X-ray protective shield – Control console – UPS • Pair of dual foot-pedals • High-frequency generator and conditioner • Face shield • 24x31cm bucky with grid • 24x31cm paddle • 19x23cm sliding paddle • 24x31cm ergonomic sliding paddle that conforms to the breast • 1.5 and 1.8 magnification stands with dedicated paddles (19x23cm, round spot, square spot) • Square spot sliding compression paddle • Round spot sliding compression paddle • Quality control toolkit • User manual and technical documentation

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	<p data-bbox="511 223 852 259">USA PowerLook AMP iCAD 7.2</p> <p data-bbox="511 279 1485 424">PowerLook Advanced Mammography Platform (AMP) is iCAD digital mammography CAD platform offering radiologists the flexibility to choose the products and functions that best fit their reading environment. A wide range of tools for disease detection and analysis provide users with workflow enhancements that improve overall efficiency.</p> <p data-bbox="511 435 1502 549">Multi-vendor CAD server allows for easy practice expansion. PowerLook AMP includes a multi-vendor CAD server that provides consistency across all digital mammography systems. PowerLook AMP allows hospitals and imaging facilities to:</p> <ul data-bbox="535 559 1453 797" style="list-style-type: none"> • Process cases using a single server • Connect up to 4 connections from any combination of supported mammography acquisition devices • Eliminate the need to purchase a separate server for each digital mammography system • Reduce hardware and service costs <p data-bbox="511 808 1485 911">In the U.S., supported vendors are GE, Siemens, Fujifilm Im, or Hologic (Selenia). Outside of the U.S., additional vendors are available, including Philips Microdose, IMS Giotto, Philips CR and DR, Planmed, and Agfa.</p> <p data-bbox="511 922 1453 1149">PowerLook promoted by GE is offering CAD 7.2 CAD 7.2 algorithms analyze mammography images using methodologies that are complementary to the radiologist. Potential cancers are identified using patented artificial intelligence and pattern recognition technology to analyze images and identify patterns. Sophisticated mathematical analysis identifies and marks suspicious areas without obscuring the underlying image, enabling fast and accurate reading.</p> <p data-bbox="511 1160 755 1191">Clinical Performance:</p> <ul data-bbox="535 1201 1502 1429" style="list-style-type: none"> • Detects up to 72% of actionable missed cancers in an average of 15 months earlier than screening mammography alone* • 90-96% sensitivity with 2.0 or 2.9 false positives per 4-view study * Brem RF, Baum J, Lechner, M Kaplan, S Souders, S Naul L. Gill, Hoffmeister, J. Improvement in Sensitivity of Screening Mammography with Computer-Aided Detection: A Multi-institutional Study. AJR 2003; 181: 687-693 <p data-bbox="511 1440 690 1471">CAD markers:</p> <ul data-bbox="535 1481 1542 1595" style="list-style-type: none"> • CAD marks highlight suspicious lesions with out obscuring underlying structures • Marks densities with ellipses and microcalcifications with rectangles that surround the region of interest <p data-bbox="511 1605 1421 1680">Seamless DICOM integration enhances clinical workflow. PowerLook Digital platform provides powerful and flexible DICOM connectivity solutions - for optimal digital</p>

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		<p>workflow and enabling seamless integration with acquisition systems, review workstations, and PACS from leading vendors. Flexible integration options enable CAD results to be viewed on workstations or sent to a printer.</p> <ul style="list-style-type: none"> • Analyses unlimited views per studies • Processes CAD on up to 30 four-views studies per hour • CAD server supports up to four FFDM system <p>Flexible DICOM Connectivity</p> <ul style="list-style-type: none"> • Supports multiple DICOM outputs including: <ul style="list-style-type: none"> – Mammography CAD Structured Reporting – DICOM 6000 Overlay – Secondary Image Capture – RTSS – Grayscale Presentation State – Encapsulated PDF • Sends CAD results to multiple destinations in different formats simultaneously • Automatic send/receive or manual push of CAD results • 10/100/1000 Base T Ethernet connectivity • Remotely accessible <p>CAD server Processor: Intel i3 Chassis: Desktop with pedestal to convert to tower configuration Hard Drive: 250 GB Network Adaptor: Up to 1000 base T Operating System: Windows 7 Embedded 64 bit</p>
3	1	<p>Flexible and Ergonomic 24 x 31cm Compression Paddle</p> <p>Flexible and Ergonomic compression paddle 24 x 31cm for Senographe Essential</p> <p>The optional ergonomic 24x31 cm sliding paddle provides tilting and flexibility for better compression uniformity from chest wall to nipple.</p> <p>Positioning is made easier especially in MLO position for large pectoral muscle and in CC when chest wall and nipple side show large thickness variation.</p> <p>Patient comfort is improved by requiring less compression on pectoral muscle or chest wall to achieve proper compression on the whole breast.</p>
4	1	<p>Sliding Flexible and Ergonomic 19 x 23 cm Compression Paddle</p> <p>Sliding Flexible and Ergonomic compression paddle 19 x 23 cm for Senographe Essential</p> <p>The optional ergonomic 19x23 cm sliding paddle provides tilting and flexibility for</p>

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		<p>better compression uniformity from chest wall to nipple. It is used in combination with the 19x23 field of view.</p> <p>Positioning is made easier especially in MLO position for large pectoral muscle and in CC when chest wall and nipple side show large thickness variation.</p> <p>Patient comfort is improved by requiring less compression on pectoral muscle or chest wall to achieve proper compression on the whole breast.</p>
5	1	<p>Bar Code Reader for Aquisition Workstation</p> <p>Bar Code Reader for mammography AWS This is a bar code reader for the acquisition workstation.</p>
6	1	<p>Standard Radiation Shield</p> <p>Additional Stand-alone Radiation Shield (MAVIG) This radiation screen is a stand-alone shield validated for fixed configurations only.</p>
7	1	<p>2d Biopsy Optical Localiser</p> <p>2D Biopsy Optical Localizer Includes:</p> <ul style="list-style-type: none"> • 2D Cross-hair • 2D Large localization paddle • 2D Spot localization paddle
8	1	<p>Pedestal Accessory Stand (Totem)</p> <p>Stand alone 4 wheel mounted breast paddle and accessory holder stand. The system can store up to 10 paddles and 2 shelves. The shelves can support mag stands or a stereo device.</p>
9	1	<p>Set of Plexiglass Plates for Quality Control</p> <p>Set of Plexiglass Plates for Quality Control</p> <p>These plexiglass plates are used for quality assurance procedures for Senographe DS or Senographe Essential.</p>
10	1	<p>System Power Supply Cable</p> <p>System Power Supply Cable</p>
11	1	<p>Senographe Essential Stereo Option</p> <p>Senographe Essential Stereotaxy The stereotaxy add-on simply slides onto the Senographe Essential for fine needle aspiration, core biopsy and vacuum assisted</p>

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		<p>biopsy or hook wire placement in upright or recumbent positions.</p> <p>It leverages GE Revolution TM detector for consistent image quality in screening, diagnostic and interventional applications.</p> <p>Advanced ergonomics combined with the Senographe Essential detector enables streamlined stereotaxy for better patient care.</p> <ul style="list-style-type: none"> • Versatile add-on to Senographe Essential full-field digital mammography system • Quick set-up • Large image field of view for easy positioning and large accessible biopsy volume • Vertical and lateral approach for easy access to breast lesions • Ergonomic carbon cover designed for easy cleaning • Dismountable paddles for easy cleaning • Large working space • Parking position for easy access • to the breast Included in the Stereo Option are the following: • Stereotaxy positioner and paddle (dismount able for cleaning purposes) <ul style="list-style-type: none"> – 3 removable guide holders and 3 bushing adapters – Stereo operator manuals (paper format) available in 28 languages • Vertical approach kit • Lateral approach kit and paddle (dismount able for cleaning purposes) <ul style="list-style-type: none"> – 6mm metal guides lateral approach (5 of each) – 8mm metal guides lateral approach (5 of each) – 3 fixing parts for Axis 8mm diameter • Service publications
12	1	<p>3 Removable Needle Guide Holders and 3 Bushing Adapters</p> <p>3 Removable Needle Guide Holders and 3 Bushing Adapters</p> <p>Additional 3 removable needle guide holders and 3 bushing adapters for Stereotactic standard use.</p>
13	1	<p>MONIT LCD 3MP EIZO RX340</p> <p>3MP LCD Monitor The monitor is mounted on a rotating arm to the characteristics:</p> <ul style="list-style-type: none"> • High performance color TFT 3MP monitor • 54cm (21.2") • 2048 x 1536 pixels (landscape)

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14	1	<ul style="list-style-type: none"> • Brightness: 1000 Cd/m2 • Contrast ratio: 1400:1 • Viewing ratio: 170 degrees
14	1	E CONTRAST E CONTRAST
15	1	<p data-bbox="521 433 1105 464">Ultra DBI 3-in-1 Interventional Mammography Table</p> <p data-bbox="521 478 1414 551">The Ultra DBI Interventional Table offers a multitude of options for positioning your patients for biopsy procedures.</p> <p data-bbox="521 565 1430 706">Use it as a table. Or use it as a chair. With its flexibility, the Ultra DBI 3-in-1 Interventional Table lets you perform biopsies on patients either decubitus or sitting upright. So different clinicians can switch between positions in seconds to accommodate their preferences and patient needs.</p> <p data-bbox="521 721 802 752">FEATURES AND BENEFITS</p> <ul style="list-style-type: none"> • Perform stereo exams in either sitting or recumbent position which allows 360 access to lesions in combination with the gantry's capabilities • Dropping sections make positioning easier with closer access to the area to be biopsied • Neck support offers three possible positions for optimizing patient comfort during a procedure • Several positions are possible to accommodate the patient for injecting intravenous media for CESM exams • Back support, foot-rest, cushion and arm-rest features help position for stereo and improve patient comfort • The hand controller allows for automated movement including up/down and tilting (trendelenburg) • Optional IV pole accessory for CESM exams • Single pedal braking • In a hospital setting, the chair could be used for other procedures in the department where a stretcher or rolling supportive chair is needed
16	1	IV Pole for Ultra DBI 3-in-1 Mammo Table IV Pole for Ultra DBI 3-in-1 Mammo Table
17	1	Mammography Accessories Cabinet GE Mammography Accessories Cabinet

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18	1	<p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> • Holds 9 Paddles, Mag Stand, QC Phantoms and more • Can be wall mounted or floor standing <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> • Dimensions (L x W x H): 30.5" x 15.5" x 40.5" • Weight: 48 lbs. <p>Sensory Suite - Gold Package - Garden</p> <p>Package includes:</p> <ul style="list-style-type: none"> • - Interactive Experience - 2 small monitors 81 cm • - SensorySuite Scent Diffuser • - SensorySuite Light Exam Room fragrance - Set of 30 capsules • - SensorySuite Garden bookmarks with perfumed bracelets - set of 1500 units • - 3 Decorative blades - Garden Large size 107 x 50 cm
19	1	<p>ACR Breast Phantom - RMI 156</p> <p>Mammography Breast Phantom - ACR Gammex 156</p> <p>The Mammographic Accreditation Phantom is designed to test the performance of a mammographic system by a quantitative evaluation of the system's ability to image small structures similar to those found clinically.</p> <p>Objects within the phantom simulate calcifications, fibrous calcifications in ducts, and tumor masses.</p> <p>The phantom is also designed to determine if a mammographic system can detect small structures that are important in the early detection of breast cancer.</p> <p>Test objects within the phantom range in size from those that should be visible on any system, to objects that will be difficult to see even on the best mammographic system.</p> <p>Breast phantom is compatible with analog and digital equipments.</p> <p>Approved by ACR for Mammography.</p> <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> • Height: 1.75 in. (4.5 cm) • Width: 4 in. (10.2 cm)

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20	1	<ul style="list-style-type: none"> • Depth: 4.25 in. (10.8 cm) <p>3 Days MM TIP Onsite Training - Stereotactic</p> <p>3 Days MM TIP Onsite Training - Stereotactic</p> <p>One 3 day onsite visit to coincide with install, Delta 32 or Senographe DS Stereo. 8AM to 5PM, Monday through Friday. Includes TELL expenses. Days provided consecutively.</p> <p>This training program must be scheduled and completed within 12 months after the date of product delivery.</p>
21	2	<p>2 Days MM TIP Onsite Training</p> <p>2 Days MM TIP Onsite Training</p> <p>Two Day MM Onsite Training provided from 8AM to 5PM, Monday through Friday. Includes TELL expenses. Days provided consecutively.</p> <p>This training program must be scheduled and completed within 12 months after the date of product delivery.</p>
22	2	<p>3 Days MM TIP Onsite Training</p> <p>3 Days MM TIP Onsite Training</p> <p>Three Days MM Onsite Training provided from 8AM to 5PM, Monday through Friday. Includes TELL expenses. Days provided consecutively.</p> <p>This training program must be scheduled and completed within 12 months after the date of product delivery.</p>
23	1	<p>DIGITAL MAMMO SYSTEMS</p> <p>Digital Mammography Systems</p> <p>The XR Digital Mammo Systems Class/Lab will provide the hands-on training required to effectively service GE digital Mammo Systems including Senographe 2000D, Senographe DS and Senographe Essential. Prerequisites to this class are basic mammography training or equivalent experience including, Older mammo fundamentals classes, or the current XR Basic Service Class (which covers Mammo basics). Older Rad and Fluoro fundamentals classes will not meet the prerequisite requirements, as they did not include mammo basics. This course must be taken within 2 years from the purchase date.</p>
24	18	<p>Meals And Lodging Expense</p> <p>Meals and Lodging Expense has been developed to allow the customer the</p>

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		<p>convenience of prepaying for their meals and lodging expenses when attending Technical Service Training at the GE Healthcare Institute located in Waukesha, WI.</p> <p>The price of this convenience is based on a per day basis. Thus a quantity of 1 is equal to 1 day's meals and lodging expense. When purchasing the meals and lodging expense please be mindful of weekend days during the training stay and include 2 days to cover a weekend in the purchase quantity.</p> <p>Examples: A 5-day course needs a quantity of 5. Any course longer than 5 days should include 2 days to account for the weekend stay. Any course longer than 10 days will require an additional 4 days of the meals and lodging expense to cover the 2 weekends of the stay. Thus a 15-day course would have a quantity of 19 days to cover the 2 weekends of the stay. This expense must be used within 2 years from the purchase date.</p> <p>Three meals a day Monday thru Thursday, 2 meals on Friday, plus breaks are provided in the onsite cafeteria. The GE Healthcare Institute cafeteria closes Friday after lunch and reopens Monday morning for breakfast. Weekend meals are the responsibility of the customer.</p>
25	6	<p>Only for In-resident courses to be taken at the GE Healthcare Institute.</p> <p>Airfare Expense</p> <p>The AIRFARE EXPENSE has been developed to allow the customer the convenience to prepay their roundtrip Airfare expenses when attending Technical Service Training at the GE Healthcare Institute located in Waukesha, WI. To be used for engineers attending In-Resident Class/Lab courses for Diagnostic Imaging.</p> <p>Customer will make their Airfare arrangements thru the GE Travel Center. Specific directions will be provided to the customer upon confirmation of class. Please note that this expense must be used within 2 years of the purchase date</p>
26	6	<p>Lodging Weekend Expense</p> <p>Lodging Weekend Expense</p> <p>Weekend Lodging Expense is to cover Saturday and Sunday lodging expenses for those engineers who are staying at the Rivers Edge Condos while attending Diagnostic Imaging Biomed training at the Healthcare Institute. Please note that there are no meals included on the weekend. Must be used within 2 years from the purchase date.</p>
27	1	<p>X-RAY BASIC SERVICE (WEB)</p> <p>X-RAY BASIC SERVICE (WEB)</p>

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		<p>This course is a prerequisite to R0182RY and is included in the purchase of the In-residence course. This course consists of 2 sections: Prerequisite and Reference course material. Prerequisite course material includes: Radiographic basic applications and Fluoroscopic basic applications. Reference course materials include: X-ray principles, Radiographic components, Fluoroscopic components. Studying the prerequisite course material and passing the 2 tests is required before attending R0182RY X-RAY BASIC SERVICE in-resident course. This course must be taken within 2 years from the purchase date.</p>
28	1	<p>X-RAY BASIC SERVICE</p> <p>X-RAY BASIC SERVICE (CLASS/LAB) (9 Days)</p> <p>The X-RAY BASIC SERVICE in-resident course will equip the engineer with the theory and physics of x-ray and the ability to operate and identify x-ray systems at a basic service level. The in-residence course will provide classroom instruction as well as hands-on lab training on a variety of R&F systems. The purchase of this course doesn't include the online course R0181RY which must be complete before attending this course. This course must be taken within 2 years from the purchase date.</p>
	1	<p>Senographe Essential IB Options</p>
29	1	<p>SENOCLAIRE LLH1 CART</p> <p>The cart is an option of the MTD, (Motorized Tomosynthesis Device), that helps the operator insert, remove, transport and store the device when not in use.</p>
30	1	<p>DBT License</p> <p>The SenoClaire license is required only in France, Germany, Netherlands, Japan and USA.</p>
31	1	<p>SENOCLAIRE LLH1 PREMIUM V</p> <p>Enhancement of the Premium View software to display dark and bright images, such as implants</p>
32	1	<p>SENOCLAIRE FOR USA CAN</p> <p>SENOCLAIRE FOR USA CAN</p>
33	3	<p>DBT MED RADIOLOGIST TRNG</p> <p>8-HOUR DIGITAL BREAST TOMOSYNTHESIS (DBT) TRAINING PROGRAM FOR Qty. (1) RADIOLOGIST</p> <p>Developed in cooperation with Daniel B. Kopans, M.D., FACR Professor of Radiology -</p>

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	<p data-bbox="516 174 1425 234">Harvard Medical School Senior Radiologist Breast Imaging Division - Massachusetts General Hospital</p> <p data-bbox="516 259 1382 319">R. Edward Hendrick, Ph.D., FACR Clinical Professor of Radiology University of Colorado - Denver</p> <p data-bbox="516 337 1455 397">The following are the objectives and course outline for providing radiologists with 8 hours of training in Digital Breast Tomosynthesis to comply with FDA requirements.</p> <p data-bbox="516 422 1118 449">Objectives: The radiologist completing this course will:</p> <ul data-bbox="537 462 1523 1373" style="list-style-type: none"> <li data-bbox="537 462 1438 522">• Understand the basic principles of image formation and display in digital breast tomosynthesis (DBT) <li data-bbox="537 536 1523 563">• Know the fundamental differences between DBT and 2D digital mammography <li data-bbox="537 578 1479 638">• Know the design options for DBT and the specific choices made in design of the GE SenoClaire DBT system <li data-bbox="537 652 1446 712">• Understand the clinical role of DBT in breast imaging, including the specific labeling of the GE SenoClaire system <li data-bbox="537 727 1495 828">• Know the ACR accreditation and FDA certification requirements for DBT, including image archiving requirements Understand imaging trade-offs on in DBT - reconstructed plane thickness and other issues <li data-bbox="537 843 1495 944">• Be familiar with basics of image acquisition using the MTD (motorized tomosynthesis device) on the GE Senographe Essential digital mammography system <li data-bbox="537 959 1474 1019">• Be familiar with the basics of image transfer and storage of DBT images (file sizes and storage requirements of DBT compared to 2D digital mammography) <li data-bbox="537 1033 1474 1094">• Understand the important elements of image display and image interpretation in digital breast tomosynthesis <li data-bbox="537 1108 1495 1251">• Know the key diagnostic features for the display, detection, and diagnosis of lesions appearing as masses, calcification groups, asymmetries and architectural distortions, including both similarities and differences between interpretation of these findings on digital mammography and DBT. <li data-bbox="537 1265 1438 1326">• Understand and see examples of DBT image quality compared to 2D digital mammography. <li data-bbox="537 1340 1344 1373">• Understand DBT doses compared to those of 2D digital mammography <p data-bbox="516 1384 1023 1411">Content Outline: Introduction to DBT -1 hour</p> <ul data-bbox="537 1425 1511 1597" style="list-style-type: none"> <li data-bbox="537 1425 883 1452">• Basic principles of DBT <li data-bbox="537 1466 1263 1493">• Differences between DBT and 2D digital mammography <li data-bbox="537 1508 870 1535">• DBT design elements <li data-bbox="537 1570 1511 1597">• Specific design choices in the SenoClaire DBT system -Step and shoot vs

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	<p>continuous motion -Choice of acquisition angles and number of views -Spatial resolution of DBT images -2D and DBT field-of-view and view options -Image reconstruction and artifact reduction -Patient breast doses on the SenoClaire DBT system</p> <ul style="list-style-type: none"> • QC on the SenoClaire DBT system and the roles of the QC technologist, medical physicist, and radiologist Using the DBT workstation -1 hour • Display features of the DBT workstation -Planes & slabs -Image display options -Viewing tools • Options in reviewing cases with DBT -Image search strategies - planes, slabs, and viewing methods -Search for masses -Search for pleomorphic calcifications in clusters, linear branching, or segmental - use of slabs -Search for architectural distortions -Search for asymmetries -Comparison to prior mammograms • Locating lesions by laterality, x-y coordinates & plane number <p>Appearance of Normal Anatomy and Assessment of Breast Density - hour</p> <ul style="list-style-type: none"> • Normal Anatomy on DBT • Assessing Breast Density on DBT -Density 1: Mostly fatty -Density 2: Scattered Fibroglandular Structures -Density 3: Heterogenously dense -Density 4: Extremely dense -Assessing the Male Breast <p>Masses on DBT - 1 hour</p> <ul style="list-style-type: none"> • Shape -Round -Oval -Lobulated -Irregular -Architectural distortion. • Margins (These modify the shape of the mass) -Circumscribed (well defined or sharply defined) margins. -Microlobulated margins -Obscured margins. -Indistinct (ill-defined) margins -Spiculated margins • Special cases -Asymmetric Tubular Structure/Solitary dilated duct -Intramammary lymph nodes -"Global Asymmetry" "Asymmetric breast tissue" -Focal Asymmetric Density - a density that cannot be accurately described using the other shapes. It is visible as asymmetry of tissue density. It could represent an island of normal breast, but its lack of specific benign characteristics may warrant further evaluation. Additional imaging may reveal a true mass or significant architectural distortion. • Density of lesions (attenuation) -High density -Equal density (isodense to fibroglandular tissue) -Low density (lower attenuation than an equal volume of fibroglandular tissue but not fat containing) -Fat containing (radiolucent) <p>Calcifications on DBT - 1 hour</p> <ul style="list-style-type: none"> • Typically benign -Skin calcifications -Vascular calcifications -Coarse or popcorn-like calcifications -Large rod-like calcifications -Round calcifications -Spherical or lucent-centered calcifications -Rim or eggshell calcifications -Milk

Item No. Qty	Description
	<p>of calcium calcifications -Suture calcifications -Dystrophic calcifications -Punctate calcifications</p> <ul style="list-style-type: none"> • Intermediate concern calcifications are indistinct or amorphous • Higher probability of malignancy -Pleomorphic or heterogeneous calcifications (granular) -Fine linear or branching calcifications • Distribution modifiers -Grouped or clustered. -Linear -Segmental -Regional -Scattered or diffuse -Multiple groups
	<p>Superposition Findings on DBT: Locations that appear to be of concern, but which appear normal on DBT. - hour</p> <ul style="list-style-type: none"> • Clustered Calcifications • Mass • Architectural distortion
	<p>Associated Findings on DBT: Used with masses or calcifications or may stand alone as findings when no other abnormality is present - hour</p> <ul style="list-style-type: none"> • Skin retraction. • Nipple retraction • Skin thickening • Trabecular thickening • Skin lesion • Axillary adenopathy
	<p>Hands-on DBT interpretation - 2 hours</p> <ul style="list-style-type: none"> • Training Cases • Difficult Cases • Test Cases
	<p>Summary and Questions and Answers hour</p> <ul style="list-style-type: none"> • Reporting DBT results • Important take-home points • Questions and answers
34 2	<p>DBT MED PHYSICIST TRNG</p> <p>8-HOUR DIGITAL BREAST TOMOSYNTHESIS (DBT) TRAINING PROGRAM FOR (1) MEDICAL PHYSICIST</p> <p>Developed in cooperation with R. Edward Hendrick, Ph.D., FACR Clinical Professor of Radiology University of Colorado ? Denver</p>

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	<p>Objectives: To ensure that medical physicists:</p> <ul style="list-style-type: none"> • Understand the principles of digital breast tomosynthesis (DBT) • Know the design options of DBT and the specific choices made in design of the GE SenoClaire DBT system. • Understand the clinical role of DBT in breast imaging, including the specific labeling of the GE SenoClaire system. • Know the ACR accreditation and FDA certification requirements for DBT • Are familiar with the MTD (motorized tomosynthesis device), its installation and use on the GE Senographe Essential digital mammography system • Understand the operation of the SenoClaire DBT system, including performance of the quality control (QC) tests specific to DBT and those shared in common with FFDM • Understand image transfer, storage, and display requirements for DBT • Participate in hands-on performance of all DBT-specific QC tests on the SenoClaire system • Understand how to interpret QC test results for DBT • Understand data reporting procedures for QC tests and their results <p>Training Materials and Equipment:</p> <ul style="list-style-type: none"> • SenoClaire Mammography System • IDI Review Workstation with DBT training cases • GE Breast Tomosynthesis Operators Manual • GE QC Manual for DBT Option <p>Course Elements: Module 1 / Duration: 1h30min / Logistics: in class / Trainer: Medical Physicist</p> <ul style="list-style-type: none"> • Principles of DBT • Design Choices in DBT in general, those made specifically for the GE SenoClaire DBT system and by other DBT manufacturers • Comparison of DBT and FFDM (technical perspective) <p>Module 2 / Duration: 1h / Logistics: in class + demo on IDI review workstation / Trainer: Medical Physicist Clinical Role of DBT, Labeling, and Indications for Use Example Cases Comparing DBT to FFDM</p> <ul style="list-style-type: none"> • Masses • Calcifications • Architectural distortions • Asymmetries

Item No. Qty	Description
	<ul style="list-style-type: none"> • Lymph nodes • Clinical image review on DBT compatible workstations
	<p>Module 3 / Duration: 1h30min / Logistics: in class / Trainer: Medical Physicist Technical Parameters for Assessing DBT Performance</p> <ul style="list-style-type: none"> • DBT image reconstruction • In-plane spatial resolution • Depth resolution • Artifacts and artifact correction in DBT • Image display (slices, slabs, other display techniques) • Image transfer, image storage, and PACS with DBT QC Procedures on the GE SenoClaire system • Test tools • QC tests in common with FFDM -Technologist's Tests -Medical Physicist's Tests • QC tests specific to DBT -Technologist's Tests -Medical Physicist's Tests • Analysis of QC test results • Reporting QC results
	<p>Module 4 / Duration: 1h / Logistics: demo on a SenoClaire system / Trainer: DBT technologist or applications specialist Clinical Operation of the GE SenoClaire system (with MTD in place)</p> <ul style="list-style-type: none"> • 2D acquisitions • DBT acquisitions • Display options • Image transfer and storage, PACS • Demonstration of Technologist's QC Tests (2D and DBT)
	<p>Module 5 / Duration: 2h30min / Logistics: Hands-on with a SenoClaire system / Trainer: Medical Physicist</p> <ul style="list-style-type: none"> • Hands-on Demonstration of QC Testing on the GE SenoClaire system on the UNIT • Physicist Hands-on Performance of QC Tests - on the UNIT
	<p>Module 6 / Duration: 30min / Trainer: Medical Physicist</p> <ul style="list-style-type: none"> • Reviewing Technologist's QC Tests • Review of System Operation and Medical Physicist QC Test Procedures summary of what was covered in the hands?on sessions; review of important points

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35	1	<ul style="list-style-type: none"> • Questions and Answers <p>2 Day SenoClaire TiP Applications Onsite Training</p> <p>2 Day SenoClaire TiP Applications Onsite Training</p> <p>Two day onsite visit focused on onsite training. A professional TiP application Lead will work with the customer to provide onsite training on the SenoClaire mammography system. Training will meet the FDA 8 hour didactic requirements.</p> <p>Applications onsite training is provided from 8 AM to 5 PM, Monday through Friday. Includes TELL expenses.</p> <p>This Applications onsite training program must be scheduled and completed within 12 months after the date of product delivery.</p>
36	1	<p>Workstation IDI 4.7.0</p> <p>INTL with Barco Coronis BB monitors</p> <p>The MammoWorkstation features softcopy reading with integrated reporting and CAD display. The Workstation is suited for reading direct digital mammography (DR) and Computed Radiography (CR) images from all major manufacturers, as well as for viewing digitized screen film images.</p> <p>The hardware is composed of Windows 7 x64 based HP 2800 computer coupled with 2x Barco Mammo Coronis 5MP LCD monitors and a 19" non-diagnostic LCD monitor.</p> <p>Intended use</p> <p>MammoWorkstation is designed to assist radiologists in conducting primary diagnostic review for diagnostic and screening mammography through flexible and interactive manipulation of multi-modality softcopy images. It provides image review, manipulation, analysis, post-processing and printing capabilities that support image management display needs in the medical environment.</p> <p>MammoWorkstation is designed to give easy and economic access to and display of multi-modality softcopy images, structured reports, and CAD results through interfaces to various image storage devices using DICOM or similar interface standards. It supports creation of structured reports according to the DICOM breast imaging report templates.</p> <p>MammoWorkstation supports teleradiology and teleconferencing providing access to multi-modality softcopy images and structured reports in multiple locations within and outside the hospital. Lossy compressed mammographic images must not be used for primary diagnostic interpretation unless approved for use in digital mammography. Display monitors used for primary diagnostic interpretation of</p>

Item No.	Qty	Description
		mammographic images must be approved for use in digital mammography. CAD display is also available in option.
37	1	<p data-bbox="521 281 959 312">INTL COLLABORATION SERVER HW/SW</p> <p data-bbox="521 333 1471 513">Collaboration server manages centrally the review workflow of multi-workstation installation. Collaboration server only works with IDI Ma m moWorkstations. All workstations connected to the Collaboration server must also have the IDI Workflow And Reporting Module License installed. Collaboration server hardware is a Windows XP x32 based HP Z600 PC.</p> <p data-bbox="521 534 1292 565">Collaboration server is not needed in a single workstation installation</p> <p data-bbox="521 586 1438 654">Interfaces with information systems must be clarified and quoted with a IDI Sales Specialist</p>
38	1	<p data-bbox="521 685 862 716">INTL DICOM SHUTTLE HW/SW</p> <p data-bbox="521 737 1471 872">DICOM Shuttle is a tool for fast transmission of medical image data. It connects DICOM enabled devices in different locations over a given - preferably secure - connection. DICOM Shuttle enables fast teleradiology transparent to connected DICOM devices leveraging JPEG2000 image compression.</p>
39	1	1 Day Service Pre-install IDI Connectivity
40	1	<p data-bbox="521 1027 878 1058">IDI Professional Services (1 Day)</p> <p data-bbox="521 1079 1471 1147">This item describes the services for a IDI Workflow Solution implementation provided by an IDI Specialist.</p> <p data-bbox="521 1168 1325 1199">It corresponds to one day of work and includes travel & living expenses.</p>
41	1	<p data-bbox="521 1214 732 1245">2 Power Cords set</p> <p data-bbox="521 1276 1097 1307">Two sets of power cords for UK/USA/JAPAN/CHINA</p>
42	1	<p data-bbox="521 1328 748 1359">Power Cord Kit 1 Set</p> <p data-bbox="521 1390 1081 1421">One set of power cords for UK/USA/JAPAN/CHINA</p>
43	1	<p data-bbox="521 1442 854 1473">IDI REPORTING MODULE LICE</p> <p data-bbox="521 1504 854 1535">IDI REPORTING MODULE LICE</p>
44	3	<p data-bbox="521 1556 854 1587">IDI Digit Breast Tomo License</p> <p data-bbox="521 1618 976 1649">IDI Digital Breast Tomosynthesis License</p>

Item No.	Qty	Description
45	1	<p>32GB RAM</p> <p>The 32 GB RAM option is recommended for institutions with high Digital Breast Tomosynthesis (DBT) volume</p>
46	1	<p>IDI WORKFLOW MODULE LICEN</p> <p>IDI WORKFLOW MODULE LICEN</p>
47	1	<p>IDI SECOND EDITION KEYPAD</p> <p>IDI Second Edition Keypad is an ergonomic backlit keypad enabling you one click access to 27 functionalities of the IDI Mammoworkstation.</p>
48	1	<p>EA 4.0 DBT BUNDLE 20TB SW</p> <p>The Centricity Enterprise Archive 4.0 Digital Breast Tomo bundle includes a software license for Centricity Enterprise Archive 4.0 that can manage up to 25,000 annual exam volume as a part of a 20TB storage target.</p> <p>The Scat SW license includes: The base functionality of Enterprise Archive for one virtual archive including DICOM send, receive, and query functionality, as well as auto-routing and prefetching of DICOM studies. It also includes HL7 updates, query spanning, and move forwarding.</p>
49	1	<p>HP GEN8 EA 4 1-CPU SERVER</p> <p>Centricity Enterprise Archive Server 4.0 or Centricity Web image cache single CPU</p> <p>Centricity EA 4.0 Server is a Windows server used for archiving DICOM or XDS data or a Web image cache for Centricity Web. Software not included. Server specifications are:</p> <ul style="list-style-type: none"> • HP DL360p Gen 8 Server, rack mounted, 1U form factor, • One E5-2620 processor, • 12 GB RAM, • 8 x 300 GB 10,000 RPM SAS hard drive, • Windows 2008 R2 standard Server 64 bit • VMWare ESXi 5 This product includes the HP e-Care support package of 3 year, 4 hour, 24 x 7, same day hardware support; restrictions may apply due to location. HP warranty starts upon shipment from GE. Please consult HP for details
50	1	<p>HP P421 W/RD 6 & INSTALL</p> <p>The P421 card from HP supports up to 8 D2600 trays. The P421 supports 6GB SAS technology and x8 PCIe 3.0 host interface technology delivers high performance and</p>

Item No.	Qty	Description
		<p>data bandwidth up to 8.5 GB/s maximum bandwidth. This catalog includes a RAID 6 license and HP installation services. Installation services are prior to install. This product assumes the warranty of the HP server that the card is installed into. This card requires installation services.</p> <p>HP D2600 WITH 2TB DRIVES</p> <p>This D2600 enclosure includes 12 x 2TB drives in a single enclosure. Usable capacity for this D2600 enclosure is 20TB. Usable capacity is calculated on a RAID 5 configuration, selection of other RAID types can alter usable capacity. The D2600 enclosure requires the P411 SAS interface card. This product inherits the warranty of the HP NAS the enclosure is being installed into. This product does include all required installation services from HP if ordered with a NAS server. If the D2600 is added to an existing NAS, HP installation services are required. These services are limited to certain countries, check with HP if warranty and installation is valid in your country and location.</p>
52	1	<p>Centricity EA or Web Integration ITPS Services</p> <p>Centricity ITPS EA and Web Integration</p> <p>This is the work effort for storage and systems integration services for the Enterprise Archive and Web server systems. The quantity of the effort quoted reflects units required to perform the IT Professional Services.</p> <p>This effort is to be performed Monday - Friday 8am-5pm LT.</p>
53	1	<p>TiP Onsite IDI Workstation Training 5 Days</p> <p>5 Days IDI Workstation training</p> <p>One 3 Day and one 2 day TIP Onsite Training for the IDI workstation</p> <p>Includes TELL expenses. Days provided consecutively.</p> <p>This training program must be scheduled and completed within 12 months after the date of product delivery.</p>