

North Carolina Department of Health and Human Services Division of Health Service Regulation

Pat McCrory Governor Richard O. Brajer Secretary DHHS

Drexdal Pratt Division Director

October 7, 2015

Jeffrey Shovelin Vidant Health Post Office Box 6028 Greenville, North Carolina 27835-6028

Exempt from Review – Replacement Equipment

Record #:

1754

Facility Name:

Vidant Medical Center

FID #:

933410

Business Name:

Vidant Medical Center

Business #:

1438

Project Description:

Replace MRI scanner

County:

Pitt

Dear Mr. Shovelin:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of September 14, 2015 the above referenced proposal is exempt from certificate of need review in accordance with G.S 131E-184(f). Therefore, you may proceed to acquire, without a certificate of need, a new GE 1.5T Optima MR450w GEM fixed MRI scanner. This determination is based on your representations that the current unit will be removed from North Carolina and will not be used again in the State without first obtaining a certificate of need.

Moreover, you need to contact the Agency's Construction Section and Acute and Home Care Licensure and Certification Section, 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.



Healthcare Planning and Certificate of Need Section

www.ncdhhs.gov
Telephone: 919-855-3873 • Fax: 919-715-4413
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



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Sincerely,

Jane Rhoe-Jones Project Analyst Martha J. Frisone, /

Assistant Chief, Certificate of Need

cc:

Acute and Home Care Licensure and Certification Section, DHSR

Construction Section, DHSR Kelli Fisk, Program Assistant



VIDANT HEALTH"

September 14, 2015 per Jeffrey Shriblin

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 Replacement MRI Scanner at Pitt County Memorial Hospital d/b/a Vidant Medical Center

Dear Ms. Rhoe-Jones:

Pitt County Memorial Hospital, Inc. d/b/a/ Vidant Medical Center (VMC) plans to replace an existing GE 1.5T Signa Infinity fixed MRI scanner with EXCITE and Twinspeed technology with a new GE 1.5T Optima MR450w GEM fixed MRI scanner. The reason for the replacement is the age of existing equipment and the technical limitations that presents. The total capital costs for the proposed replacement is estimated to be \$2,187,568 (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 January 2016.

Even though the project exceeds \$2,000,000, VMC believes that the proposed equipment replacement is not subject to review under North Carolina's Certificate of Need (CON) laws. VMC's proposed project meets the requirements found in G.S. 131E-184(f). This statute states:

- (f) The Department shall exempt from certificate of need review the purchase of any replacement equipment that exceeds the two million dollar (\$2,000,000) threshold set forth in G.S. 131E-176(22) [sic, should be (22a)] if all of the following conditions are met:
 - (1) The equipment being replaced is located on the main campus.
 - (2) The Department has previously issued a certificate of need for the equipment being replaced. This subdivision does not apply if a certificate of need was not required at the time the equipment being replaced was initially purchased by the licensed health service facility.
 - (3) The licensed health service facility proposing to purchase the replacement equipment shall provide prior written notice to the Department, along with supporting documentation to demonstrate that it meets the exemption criteria of this subsection.

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.

- b) The equipment is being replaced in the exact location where the existing equipment currently resides and is located on the main campus. Reference Appendix C for Site Plans and Floor Plans associated with the proposed project.
- c) VMC obtained ownership of the existing equipment through a certificate of need in June 2003 through approved project ID Q-6709-02.
- d) By this letter, VMC is providing prior written notice to the Department, along with supporting documentation to demonstrate that it meets the exemption criteria of this subsection.

VMC's proposal meets the requirements identified above and is therefore exempt from review. Therefore, VMC's 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.

Jeffrey Shovelin

Director of Corporate Planning

Vidant Health

PO Box 6028

Greenville, NC 27835-6028

Appendix A Vendor Quote

Appendix A Vendor Quote



Date: Quote #: 08-14-2015 PR8-C36111

Version #:

22

Vidant Medical Center 2100 Stantonsburg Rd Greenville NC 27834-2818 Attn: Sandy Sackrison

2100 Stantonsburg Rd Greenville

NC 27834-2818

Customer Number:

1-23I1HJ

Quotation Expiration Date: 09-30-2015

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

Terms of Delivery:

FOB Destination

Billing Terms:

80% delivery / 20% Installation

Payment Terms:

NET 30

Total Quote Net Selling Price:

\$1,793,721.00

INDICATE FORM OF PAYMENT:
If "GE HFS Loan" or "GE HFS Lease" is NOT selected at the time of signature, then you may NOT elect to seek financing with GE Healthcare Finances. (GE HFS) to fund this arrangement after shipment.
Cash/Third Party Loan
GE HFS Lease
GE HFS Loan
Third Party Lease (please identify financing company)

Agreement (except signatures in the signature blocks and an indication in the form of payment section below) will be void.

Each party has caused this agreement to be executed by its duly authorized representative as of the date set forth below.

CUSTOMER		GE HEALTHCARE Scott Ramsey
Authorized Customer Signature	Date	Signature
Print Name	Print Title	Product Sales Specialist
Purchase Order Number (if applica	able)	Email: Floyd.Ramsey@med.ge.com Office: +1 919 621 1657 Mobile: 919-621-1657 Fax: 919-869-1618

08-14-2015

Date



Date: Quote #: 08-14-2015 PR8-C36111

Version #:

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Total Quote Selling Price Trade-In and Other Credits

Total Quote Net Selling Price

\$1,793,721.00 \$0.00

\$1,793,721.00

To Accept this Quotation

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

Floyd Ramsey

Office: +1 919 621 1657 Mobile: 919-621-1657

Email: Floyd.Ramsey@med.ge.com

Fax: 919-869-1618

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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NOTICE REGARDING MAGNETIC RESONANCE ("MR") PRODUCTS. This notice applies only to the following GE Healthcare products: MR: Discovery MR750, Discovery MR750w, Discovery MR450 and Optima MR450w. 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 # XR0053 (MR).

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 NOVCustomerService@novationco.com

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



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Item No.	Qty	Catalog No.	Description
	1		Optima MR450w 1.5T GEM 25.0 Optima MR450w 1.5T GEM 25.0
1	1	S7525AE	Optima MR450w 1.5T GEM MR System ES Platform
			The Optima MR450w 1.5T GEM MRI system from GE Healthcare is designed to deliver a comfortable patient-friendly environment while also delivering uncompromised clinical performance and streamlined workflow.
			The ES configuration includes the system electronics, operating software, imaging software, post-processing software and RF coil suite:
			• eXtreme Gradient Technology
			Acoustic Reduction Technology
			OpTix RF Receive Technology
			Volume Reconstruction Engine
			Computing Platform and DICOM
			GEM Express Patient Table with IntelliTouch
			• GEM Suite - ES Coil Package
			• Express 2.0 Workflow
			ScanTools and ES Tools
			eXtreme Gradient Technology: The Optima MR450w delivers high temporal resolution through 3-axis gradient amplifier power supply and efficient gradient coil design as well as high spatial integrity through excellent magnet homogeneity and gradient linearity over a large FOV. In addition, the XRM gradients are non-resonant and actively shielded to minimize eddy currents, and use an innovative digital control architecture design to deliver high fidelity, accuracy and reproducibility.
			• Peak amplitude per axis: 34 mT/m
			• Peak slew rate per axis: 150 T/m/s
			• Peak current & voltage: 660 Amps, 1650 Volts
			Digital PI feedback loop control
			Maximum FOV: 50cm
			Duty Cycle: 100%

Acoustic Noise Reduction Technology: The Optima MR450w GEM system features five levels of acoustic reduction technology to deliver an enhanced patient environment.



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Item No. Qty

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Description

- Gradient & RF coil isolation
- Acoustic dampening material
- Vibro-acoustic isolation
- Gradient waveform optimization

OpTix RF Receive Technology: The OpTix RF receive chain enables high bandwidth, high channel count reception with improved SNR over conventional MR receiver designs. The MR signal is digitized within the scan room and then optically transmitted to the reconstruction engine in the electronics room increasing SNR for all volume acquisitions

- Coil input ports: 138
- Simultaneous channel/receivers: 32
- Receiver sampling per channel: 80 MHz
- Receiver dynamic range at 1 Hz BW: >165 dB
- Receiver resolution: up to 32 bits
- Digital quadrature demodulation

Computing Platform: The Intel Xeon Nehalem Dual Core Processor computing platform utilizes a parallel, multi-processor design to enable simultaneous scanning, reconstruction, filming, post-processing, archiving, and networking. The keyboard assembly integrates an intercom speaker, microphone, volume controls, and emergency stop switch. Start scan, pause scan, stop scan and table advanced to center hot keys are also included.

- 8GB DDR3 Memory
- 146GB SAS disk subsystem
- 24" flat panel LCD with 1920x1200 resolution
- Single tower configuration
- DVD interchange

DICOM: The Optima MR450w GEM system generates MR Image, Secondary Capture, Structured Report, and Gray Scale Softcopy Presentation State DICOM objects. The DICOM networking supports both send and query retrieve as well as send with storage commit to integrate with PACS archive. Please refer to the DICOM Compliance Statement for Optima MR450w GEM for further details.

GEM Express Patient Table with IntelliTouch: The GEM Express table is a mobile patient transport device with an embedded high-density, GEM Posterior RF Array and touch



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sensitive IntelliTouch land-marking. The fully detachable GEM Express table is easily docked and undocked by a single operator and simple to move in and out of the exam room for patient transport and preparation. These features can be vital in instances where multiple patient transfers can negatively impact patient care or when emergency extraction is required.

The GEM Express table and embedded GEM PA coil are designed to accommodate head-first or feet-first imaging for all supported exams. The table features three high-density coil connection ports: one at each end and one embedded for the GEM PA. Two additional coil connection ports are included in the docking mechanism.

- Maximum patient weight for scanning: 500 lbs
- Maximum patient weight mobile: 500 lbs
- Maximum patient weight for lift: 500 lbs
- 205 cm symmetrical scan range
- Automated vertical and longitudinal power drive
- Fast longitudinal speed: 30 cm/sec
- Slow longitudinal speed: 0.5 cm/sec
- Integrated arm boards & non-ferrous IV pole
- IntelliTouch & laser land-marking

GEM Suite - ES Coil Package: The Geometry Embracing Method - GEM - Suite of coils is designed to enhance patient comfort and image quality while simplifying workflow by ensuring that the geometry of the surface coil matches the geometry of the patient. The ES Coil Package includes:

- T/R Body Coil & T/R Head Coil
- GEM PA, HNU & AA Arrays
- GEM Standard Flex Suite & Positioners
- 3-channel Shoulder Array

The GEM Posterior Array is designed to provide optimal element geometry for each targeted anatomy by using different element geometries for the cervical-to-thoracic spine transition, thoracic and lumbar spine, and the body.

- Elements: 40
- Length: 100 cm; Width: 40cm
- S/I coverage: 100cm head-first or feet-first
- Parallel imaging in all three scan planes



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• Head-first or feet-first positioning

The GEM PA is designed to be used in conjunction with the GEM HNU, GEM AA or GEM Small AA (purchased separately), and the GEM PV Array (purchased separately), The GEM PA is invisible to additional surface coils placed directly on top of the table surface.

The GEM Head and Neck Unit includes the head base-plate and three anatomically optimized anterior arrays: the anterior Neuro-vascular array, the anterior cervical spine array, the anterior open-face array.

The GEM HNU may be positioned at either end of the GEM Express table to support head-first or feet-first imaging and may remain in place for all body, vascular, spine, and the majority of MSK exams. The GEM HNU base plate supports the patient's head and the Comfort Tilt variable-degree ramp can be positioned under the HNU base plate to elevate the coil to match the patient's head and neck position.

- Elements: up to 28 combined with PA and AA
- Length: 49.5 cm; Width: 38.8cm
- Height with NV Array: 36.8 cm
- Height with Cervical Array: 33.6 cm
- Height with Open Array: 25.7 cm
- S/I coverage: up to 50 cm with PA and AA
- Parallel imaging in all three scan planes
- Head-first or feet-first positioning

The GEM Large Anterior Array facilitates chest, abdomen, pelvis, and cardiac imaging. The GEM AA is lightweight, thin and flexible, and pre-formed to conform to the patient's size and shape. The GEM AA permits upper abdomen and pelvis imaging without repositioning the coil.

- Elements: up to 36 combined with PA
- Length: 55.6 cm; Width: 67.3cm
- S/I coverage: 54 cm
- R/L coverage: up to the full 50 cm FOV
- Parallel imaging in all three scan planes
- Head-first or feet-first positioning

The GEM Flex Suite is a versatile set of high-density 16CH receive arrays designed to

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provide high quality imaging in a wide range of clinical applications. The high degree of flexibility is particularly advantageous when imaging patients that do not fit the constraints of rigid coils. This standard set includes:

- Large Flex Array: 23 cm x 70 cm
- Medium Flex Array: 23 cm x 48 cm
- GEM Flex Interface Module P-Connector
- Positioning Devices

The 3-channel Shoulder Array offers the increased signal-to-noise characteristic of phased-array technology, along with unique sleeve design that delivers exceptional joint-imaging capabilities.

Workflow: Express Workflow 2.0 incorporates features designed to streamline and automate exams.

- In-Room Operator Console and controls
- IntelliTouch land-marking
- Protocol Libraries & Management Tools
- Workflow Manager & Auto Functions
- Inline Processing, Networking & Viewing
- Start Scan, Stop Scan, Pause/Resume Scan

The In-Room Operator Console and dual-sided controls enable interaction with the host computer from the magnet room. The user has direct control or selection of:

- Display of patient name, ID, study description
- Display and entry of patient weight
- Display and entry of patient orientation and position
- · Cardiac gating waveform display
- EKG lead confirmation with gating control
- Respiratory waveform display
- IntelliTouch Landmarking
- AutoStart
- Display of coil connection and status
- Display of table location and scan time
- Screen saver

Express Exam enables complete control of protocols for prescription, archiving,



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searching, and sharing. Protocols are organized into two libraries – GE authored and Site authored – and Protocol Notes allow customized notes to be saved with each protocol. ProtoCopy enables a complete exam protocol, from either a library or previous exam, to be shared with a mouse click, and the Modality Worklist provides an automated method of linking exam and protocol information for a patient directly from a DICOM Worklist server.

The Workflow Manager controls the execution of scan prescription, acquisition, processing, viewing and networking and may automate these steps, when requested by the user. Auto Coil Prescription automatically selects the optimum subset of elements, and AutoStart automatically starts the first acquisition as soon as the technologist exits the magnet room.

Processing steps are automatically completed with Inline Processing once the data have been reconstructed and the images saved into the database. For certain tasks, the user must accept the results or complete additional steps prior to saving the images. These automatic Inline Processing steps can be saved into the Protocol Library.

Inline Viewing allows the user to conveniently view, compare, and analyze images from the Scan Desktop by selecting the desired series from the Workflow Manager.

ScanTools: ScanTools 25.0 and the ES clinical package deliver an expansive portfolio of advanced applications, imaging options, and visualization tools packaged with the system operating software to provide extensive clinical capability and enhanced productivity.

Advanced Neuro Applications:

- PROPELLER 3.0 motion robust radial FSE
- PROPELLER 3.0 FSE-based diffusion imaging
- 3D Cube 2.0 FSE-based 3D imaging
- Dual Inversion 3D Cube imaging
- Spin Echo & Fast Spin Echo Suites
- T1-FLAIR & T2-FLAIR Suite
- Gradient Echo & Fast GRE Suites
- Spoiled Gradient Echo & Fast SPGR Suites
- Echo Planar, EPI FLAIR & fMRI EPI Suites
- EchoPlus with RTFA diffusion imaging

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- 3D FIESTA & 3D FIESTA-C steady-state imaging
- 3D BRAVO IR-prepped fast SPGR imaging
- 3D COSMIC modified steady-state imaging
- 2D/3D MERGE multi-echo recombined GRE imaging
- PROBE PRESS single voxel spectroscopy
- BrainSTAT GVF & AIF parametric maps
- Ready Brain automated brain exam prescription
- DWI Prep

Advanced Spine & MSK Applications:

- PROPELLER 3.0 motion-robust radial FSE
- 3D Cube 2.0 FSE-based 3D imaging
- Spin Echo & Fast Spin Echo Suites
- Gradient Echo & Fast GRE Suites
- 3D COSMIC modified steady-state imaging
- 2D/3D MERGE multi-echo recombined GRE imaging
- High Bandwidth FSE artifact reduction
- Spectral Spatial Fat Suppression

Advanced Body Applications:

- Body Navigators pencil-beam diaphragm tracker
- PROPELLER 3.0 motion robust radial FSE
- Spin Echo & Fast Spin Echo Suites
- Gradient Echo & Fast GRE Suites
- 3D Cube 2.0 FSE-based 3D imaging
- 3D LAVA T1 DCE imaging with Turbo ARC
- 2D/3D Dual Echo Fat-Water Imaging
- 3D FRFSE MRCP & HYDRO imaging
- Enhanced SSFSE single-shot FSE imaging
- 2D FS FIESTA steady-state imaging
- Multi-phase DynaPlan
- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- Respiratory Compensation, Gating & Triggering



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- iDrivePro & iDrivePro Plus real-time imaging
- SPECIAL IR Fat Saturation

Advanced Vascular Applications:

- Body Navigators pencil-beam diaphragm tracker
- 2D/3D Time-Of-Flight & 2D Gated Time-of-Flight
- 2D/3D Phase Contrast & Phase Contrast Cine
- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- 3D QuickStep automated multi-station imaging
- Magnetization Transfer& Flow Compensation
- Peripheral & EKG Gating & Triggering
- Respiratory Compensation, Gating & Triggering

Advanced Cardiac Applications:

- Double-Triple IR-FSE with spectral fat suppression
- FastCine FGRE-based, gated multi-phase imaging
- 2D FIESTA Cine steady-state, gated multi-phase imaging
- 3D FS FIESTA steady-state coronary imaging
- iDrivePro Plus real-time inter-active imaging
- Blood Suppression
- Cardiac Navigator diaphragm tracker
- Cardiac Compensation, Gating & Triggering
- Respiratory Compensation, Gating & Triggering
- Cine Paging (128 images/4 windows @ 30fps)

Advanced Imaging Tools:

- ARC & Turbo ARC data-based parallel acceleration
- ASSET 3.0 image-based parallel acceleration
- Real Time Field Adjustment for DWI
- Chemical Shift Direction Selection
- 2D/3D GradWarp compensation
- Acoustic Reduction Technology
- IR Prep, DE Prep & T2 Prep



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- Full Echo Train & Tailored RF
- Spectral Spatial Fat Suppression
- SPECIAL IR Fat Suppression
- ASPIR Fat Suppression
- Matrix ZIP 512 & ZIP 1024
- 3D Slice 2X ZIP & 4X ZIP
- Square Pixel & Rectangular FOV
- No Phase Wrap & No Frequency Wrap
- Extended Dynamic Range

Advanced Processing & Display:

- Inline Viewing & Inline Processing
- Image Fusion & Image Pasting
- SCIC & PURE surface coil intensity correction
- Multi-planar Volume Reformat
- Interactive Vascular Reformat
- ClariView Image Filtering
- Compare Mode & Reference Image
- Cine Paging (128 images/4 windows @ 30fps)

Advanced FuncTool Analysis:

- ADC maps & eADC mapping
- Correlation Coefficient analysis
- NEI Negative Enhancement Integral analysis
- MTE Mean Time To Enhance analysis
- Positive Enhancement Integral analysis
- Signal Enhancement Ratio analysis
- Maximum Slope Increase analysis
- Maximum Difference Function analysis
- Difference Function analysis

M7000ZR

Optima MR450w with GEM Magnet Design

To improve the patient experience and provide high image quality, no other component of an MRI system has greater impact than the magnet. The Optima MR450w system features a short, wide bore magnet that delivers a large field of view.

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The magnet geometry has been optimized to reduce patient anxiety by providing more space in the bore and more exams with the patient's head outside of the magnet. The 50cm field of view provides uniform image quality and can reduce exam times since fewer acquisitions may be necessary to cover large areas of anatomy. Complemented by GE's active shielding technology, the Optima MR450w has very flexible installation specifications to provide easy siting. And with zero-boil-off magnet technology, helium refills are effectively eliminated, thus reducing operating costs and maximizing uptime.

Magnet:

- Manufactured by GE Healthcare.
- Operating field strength 1.5T (63.86 MHz).
- Active magnet shielding.
- Zero boil-off Cryogens.
- Magnet length 145cm.
- Patient Aperture 76 cm.
- Patient Bore Diameter 70cm.
- Patient Bore Length 105cm.
- Maximum Field of View 50 cm x 50 cm x 50 cm.

Magnet Homogeneity: Typical ppm and Guaranteed ppm shown.

- 10cm DSV 0.007 and 0.02.
- 20cm DSV 0.035 and 0.06.
- 30cm DSV 0.11 and 0.18.
- 40cm DSV 0.5 and 0.7.
- 45cm DSV 1.2 and 1.6.
- 50x50x45cm 2.3 and 3.6.
- 50cm DSV 3.3.

DSV = Diameter Spherical Volume. Homogeneity for an elliptical volume of 50 cm (x,y) by 45 cm (z) dimension volume is shown for reference. Fringe field (axial x radial):

- 5 Gauss = 4.0 m x 2.5 m.
- 1 Gauss = 6.2 m x 3.7 m.

Quiet Technology: GE has implemented Quiet Technology on critical components of the Optima MR system to reduce acoustic noise and improve the patient environment. This technology enables full use of the eXtreme Gradient Platform for excellent image quality, while maintaining a safe environment for the patient. The technology encompasses the gradient coil, RF body coil, and magnet mounting.



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3	1	M7005ZL	Optima MR450w 1.5T GEM 32ch+ System Electronics
			Patient expectations of MR have shifted in recent years, as patients have begun to demand a better, more comfortable scanning experience. Increasing the size of the bore is a good first step, but it's only the beginning. The right system should overcome traditional limitations of wide-bore MR, offering both excellent images and a user-friendly experience. Patients should be more comfortable during their scan, and clinicians more comfortable in making a diagnosis. All the while, organizations should expect their MR system to help them deliver solid financial returns, maintain a high standard of patient safety, and increase the quality of their care.
			The Optima MR450w with GEM 1.5T MRI scanner from GE Healthcare offers a range of new functionality, provides a more patient-friendly environment, and is a clinical workhorse system for practices of all sizes and specialties.
			Volume Reconstruction Engine Architecture:
			The backbone of any high-channel count system is the reconstruction architecture. The MR450w utilizes the latest multi-core processing engine acquisition to disk technology, and bulk-access memory to deliver the necessary processing power to reconstruct data from high channel count coils. With 55,000 2D FFTs/sec an impressive volume to ensure you are not hampered in image reconstruction speed. The result is reliable and efficient processing MR data that enhances exam productivity.
4	1	S7505EK	Preinstallation Collector and Cable Concealment Kit
			The Preinstallation Collector delivers to the site in advance of the magnet and main electronic components. This facilitates the later delivery and installation of supporting electronics. The following are the main components in the Preinstallation collector: Heat exchange cabinet for distribution of chilled water. Primary Penetration wall panel for support of the penetration cabinet.
			 Secondary Penetration wall panel for support of gradient filters, helium cables, and chilled air and water. Helium cryocooler hose kit.
			The Cable Concealment Kit accommodates a wide-range of scan room ceiling heights and is designed to provide a clean-look installation by concealing the overhead cabling from view.
5	1	M7004ZP	MR450w Dock and 32-Channel Switch Collector
			The MR450w Dock and 32-Channel Switch collector provides the interface between
			1,100

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			the magnet and GEM Express Patient Table with IntelliTouch. Also included is the RF signal switching hardware that routes the input signals to the respective OpTix receivers.
6	1	S4500YH	Optima MR450w Cable Configuration - A
			To accommodate various electronic and scan room configurations and sizes, the MR450w has preset lengths of cables and connector kits to speed system installation. This cable collection is compatible with fixed and relocatable building configurations.
7	1	M7000VM	Vibroacoustic Dampening Kit
			Material in the Vibroacoustic Dampening Kit can significantly attenuate the transmission of gradient-generated acoustic noise through the building structure to nearby areas, including adjacent rooms and floors above or below the MR suite. If this kit is applied during the installation of a new magnet, no additional service charges are necessary. However, installation of the Vibroacoustic Dampening kit under an existing magnet requires special steps. The steps to prepare the site and steps to install, such as modifications to the RF screen room, and other magnet rigging, modifications to the RF screen room, and other finishing work, are not covered in the pricing.
8	1	M7000WL	Main Disconnect Panel
			The Main Disconnect Panel safeguards the MR system's critical electrical components, by providing complete power distribution and emergency-off control.
9	1	M3335JZ	English Keyboard
		v	Required for our operator console. This keyboard is ergonomically designed to keep your staff comfortable even through the longest shifts. The scan control keyboard assembly has an intercom speaker, microphone, volume controls and emergency stop switch.
10	1	M7000ZM	MR450w GEM Express Patient Table with IntelliTouch Technology
			Unique to GE, the fully detachable GEM Express Patient Table incorporates the Liberty Docking System to improve safety, exam efficiency, and patient comfort over fixed-table solutions.
			Easily docked and undocked by a single operator, the patient table is simple to move in and out of the exam room for patient transport and preparation. These become vital features in those instances where multiple patient transfers can negatively impact patient care or when emergency evacuation is required; the table can be undocked and removed from the scan room in under 30 seconds with just one



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Item No. Qtu

Cataloa No.

Description

technologist. In time-sensitive situations there is no need to remove or disconnect surface coils as the system can automatically disconnect the coils for you.

Express Patient Table Comfort: The fully detachable table may help reduce patient anxiety and provide personal discretion by enabling patients to prepare for the exam in a private space. This is particularly important for patients undergoing a breast evaluation.

To improve patient comfort and safety, the GEM Suite includes a unique set of Patient Comfort pads. The pads are designed with variable density foam that uniquely compresses based on patient geometry and weight. Certain sections of the GEM Suite pads are designed to compress more easily than others and this optimal design may minimize pressure points and improve patient comfort. The pads have been designed to support a wide range of patient sizes and weights.

In addition, the pads are made with UltraFresh protective coating, are strong, fluid-proof, air tight, and easily cleanable. An anti-skid undersurface reduces pad movement on the table and thus may simplify patient setup and egress.

Symmetric Scan: To help reduce patient anxiety, the GEM Express Patient Table is designed to accommodate head first or feet-first imaging for all neurologic, cardiac, abdominal, spinal, and peripheral vascular exams, as well as the majority of musculoskeletal imaging. Whole body imaging may also be completed in either patient orientation. All breast imaging is completed feet first.

Symmetrically positioned within the patient supporting cradle are three high density coil connection ports. One at each end of the patient cradle, and another one embedded under the covers to connect the GEM Posterior Array. This design enables all components of the GEM Suite to support either patient orientation and helps ensure the most comfortable patient position. Two additional coil connection ports are included on the scanner docking mechanism.

Ergonomics: With one hand and with one simple motion, the integrated arm boards and IV pole can be optimally positioned to support the patient for injections or transportation. This unique capability of the Optima Express Table also makes it ideally suited for multi-station exams with no scan room intervention, such as peripheral vascular (run-off) imaging.

- Patient table drive: Automated, power driven vertical and longitudinal.
- Longitudinal speed: 30 cm/sec (fast) and 0.5 cm/sec (slow).
- Total cradle length: 211 cm.
- Positioning accuracy: +/- 0.5 cm.
- Maximum patient weight for scanning: 227 kg (500 lbs).
- Maximum patient weight for lift: 227 kg (500 lbs).



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Item No. Qtu

Catalog No.

Description

Maximum patient weight when mobile: 227 kg (500 lbs).

IntelliTouch patient positioning: The Optima MR450w has automated many routine tasks to both simplify patient preparation, and gain productivity. With IntelliTouch Technology, the technologist simply touches the side of the patient table and then a highlighted button to efficiently complete the following:

- Landmark the patient.
- Activate the surface coil.
- Center the patient in the bore.
- Start scanning.
- Acquire, process and network images.

For those patients where pinpoint alignment is desired, laser alignment lights may be used for either the selection or confirmation of landmark position.

The GEM Suite surface coil components are ordered separately.

Additional tables may be purchased for use with the scanner. With a second table, the next patient can be fully prepared for the exam outside the magnet room while the current patient is being scanned, thus maximizing system utilization and productivity.

This GEM Express Patient Table is only compatible with the Optima MR450w with GEM system and cannot be docked to any other type of GE scanner. Multiple GEM Express Patient Tables may be used with a single system to enhance scanner productivity and workflow. All GEM Suite surface coil components (GEM Posterior Array, GEM Head/Neck Unit, GEM Anterior Array, GEM Peripheral Vascular Arrays) and other optional surface coils are sold as separate items with separate catalog numbers.

The Optima MR450w Express Patient Table (M7000WF) is also compatible with a GEM system.

11	1	M1000MW

Operator's Console Table

Wide table designed specifically for the color LCD monitor and keyboard.

12 1 M3335CB

1.5T Calibration Phantom Kit

This 1.5T calibration kit contains a large volume shim phantom, a daily quality assurance phantom, an echo-planar calibration phantom, and the associated loader shells.

13 1 M3335CA

Calibration Kit Phantom Holder Cart

14 1 R32052AC

Standard service package delivered for the warranty period.



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Item No.	Qty	Catalog No.	Description
15	1	S7024CD	MSK Elite Package
			MAVRIC SLCartigram
			MAVRIC SL is a new advanced magnetic resonance imaging technique for imaging soft tissue and bone near MR conditional metallic devices. MAVRIC SL is designed to greatly reduce susceptibility artifacts, compared to conventional fast spin echo techniques, and is suitable for use on all patients cleared for MR exams.
			Cartigram is a non-invasive imaging method for early detection of osteoarthritis. It quantifies the T2 relaxation of knee cartilage and can overlay the quantified parametric maps over high resolution images for clear visualization of the anatomy.
16	1	S7024CK	Vascular Expert Package

Vascular Expert Package

- Inhance Suite 2.0
- **TRICKS**
- Flow Analysis

The Inhance Suite application consists of several sequences designed to provide high-resolution images of the vasculature with short-acquisition times and excellent vessel detail. These sequences include: Inhance Inflow IR: Inhance Inflow IR is an angiographic method, which has been developed to image renal arteries with ability to suppress static background tissue and venous flow. This sequence is based on 3D FIESTA, which improves SNR, as well as produce bright blood images.

Inhance 3D Velocity: Inhance 3D Velocity is designed to acquire angiography images in brain and renal arteries with excellent background suppression in a short scan time. By combining a volumetric 3D phase contrast acquisition with parallel imaging, efficient k-space traversal, and pulse sequence optimization, Inhance 3D Velocity is capable of obtaining complete Neurovascular imaging in 5-6 minutes.

Inhance 3D Deltaflow is a 3D non-contrast enhanced MRA application for peripheral arterial imaging. Inhance 3D Deltaflow is based on the 3D Fast Spin Echo technique and it utilizes the systolic and diastolic flow differences to help generate arterial signal contrast. A subtraction of the systolic phase from the diastolic phase images results in arterial only images, with venous and background suppression.

Inhance 2D Inflow: The Inhance 2D Inflow pulse sequence is designed to acquire angiography images of arteries, which follow almost a straight path, i.e. femoral, popliteal, carotid arteries, etc.

TRICKS provides high resolution multi-phase 3D volumes of any anatomy for fast accurate visualization of the vasculature. With segmented complex data



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22

Item No. Qty

Catalog No.

Description

recombination, TRICKS can accelerate 3D dynamic vascular imaging without compromising spatial detail. TRICKS also uses elliptic centric data collection for optimized contrast resolution and auto-subtraction for optimized background suppression. The result is time course imaging that does not require timing or triggering, provides high temporal and high spatial resolution, and enables the extraction of optimum phases of data. As a result, TRICKS enables reliable, high quality vascular imaging.

Flow Analysis automates the review and analysis of gated phase contrast magnetic resonance (MR) images and generates a report for the referring physician. This version is available on the host computer.

Flow Analysis has an automated edge detection algorithm that propagates through all the phases of the cine phase contrast series.

The flow analysis measurement tab displays a summary chart of peak velocities in addition to individual velocity results from each phase of the cardiac cycle. A background correction may also be applied which is particularly suited to slow flowing fluid such as cerebrospinal fluid.

Customizable Macros are a feature of Flow Analysis 4.0. These Marcos allow the user to quickly write a report specific to the patient being assessed with simple mouse clicks. The macros are customizable to reflect the language used by the reporting physician.

Flow Analysis offers the capability to archive reports or cine images as seen in a DICOM format so they may be viewed on any DICOM viewer.

17

1 S7525CN

Body Expert Package

- IDEAL & Flex
- IDEAL IQ
- StarMap

IDEAL and Flex generates consistent tissue contrast and reduces the number of series in an exam. The IDEAL acquisition and reconstruction methods can generate a water-only, fat-only, in-phase and out-of-phase data sets for clear tissue differentiation in a single series. In addition, susceptibility artifacts common to MR imaging such as incomplete or inaccurate fat saturation, and chemical shift can be eliminated. The IDEAL application acquires multiple echoes and uses unique reconstruction routines to generate the four image contrasts and correct for errors due to tissue susceptibility.



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Item No. Qty

Catalog No.

Description

For fast T1w multi-phase imaging of the abdomen and pelvis, LAVA Flex acquisition uses 2D ARC parallel imaging to reduce artifacts from breath hold misregistration and incorrect FOV placement while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase.

For fast T1w multi-phase imaging of the breast, VIBRANT Flex acquisition uses 2D ARC parallel imaging to enable higher acceleration factors over ASSET parallel imaging, and reduce artifacts from breath hold misregistration and eliminates artifacts due to incorrect FOV placement, while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. VIBRANT Flex requires VIBRANT, which must be purchased separately.

IDEAL IQ is an acquisition and reconstruction software package that generates water and fat images, relative fat concentration, and R2* relaxation maps. This technique builds upon GE's IDEAL (Iterative Decomposition of water and fat with Echo Asymmetry and Least-squares estimation) technology by incorporating a fast, volumetric multi-echo imaging sequence and an enhanced reconstruction algorithm to improve the visualization of regional fat deposits in-vivo.

IDEAL IQ incorporates the following features and functionality:

- A fast, multi-echo 3D gradient echo imaging sequence to generate volumetric data.
- Parallel imaging to improve acquisition speed and allow breath hold acquisitions.
- A low flip angle excitation scheme to reduce T1 bias in the fat, water, and fat fraction maps.
- Multi-echo reconstruction processing to calculate R2* decay rate maps.
- Magnitude fitting to reduce the influence of phase errors due to system imperfections.
- A multi-peak fat model to account for the multiple resonant peaks of fat.
- Fully automated, generation and storage of R2* corrected fat and water maps, fat fraction maps, and R2* maps from the data acquired.

The IDEAL IQ reconstruction generates R2* corrected fat and water maps as well as an R2* map depicting the signal decay at each voxel in the image. Water and fat images produce the fat fraction map, a relative measure of the quantity of fat to total signal (water and fat signal combined) at each voxel in the image. The fat fraction image is scaled such that a full-scale value represents a voxel containing only fat while a value of zero represents no fat in that voxel.



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Item No.	Qty	Catalog No.	Description
			StarMap enables the acquisition of multiple gradient echo images at each 2D slice at a range of echo-times. The resultant images can be processed using FuncTool to provide T2* maps within the anatomy of interest.
18	1	S7525CP	Body Elite Package • FOCUS • DISCO
			FOCUS delivers a highly efficient method for increasing the resolution in Single Shot DW EPI sequences. The outcome delivers robust high resolution results while removing artifacts typically induced from motion, image backfolding or unsuppressed tissue. In addition, with the higher efficiency of the application, the reduced field of view imaging leads to a reduction in blurring that translates into an overall improvement to the image quality result. The sequence utilizes 2D selective excitation pulses in DW-EPI acquisitions to limit the prescribed phase encoded field of view.
			DISCO provides highly accelerated LAVA FLEX based volumetric imaging for high resolution 3D volumetric results without compromising temporal imaging performance, and delivering 1.5mm isotropic results of whole organ coverage in as low as 5 seconds. DISCO utilizes a 2point DIXON method to increase the robustness of the technique.
19	1	M7000AA	MR450w GEM Posterior Array
			The GEM Posterior Array (PA) is designed to provide optimum element geometry for each patient and targeted anatomy. Unlike matrix arrays that use the exact same coil element size and shape for all anatomy, the GEM PA uses different element geometries for the cervical to-thoracic spine transition, thoracic and lumbar spine, and body and cardiac anatomy. This approach maximizes signal-to-noise by matching the size and shape of the coil elements to the size and shape of the targeted anatomy. Four different sizes and shapes of elements are used throughout the design, and parallel imaging is supported in all 3 planes.
			The GEM PA is symmetrically positioned within the GEM Express Patient table and is fixed in location. This design enables all components of the GEM Suite to support either head-first or feet-first patient orientation to support either patient preference.
			The GEM PA is invisible to additional surface coils when they are placed directly on top of the surface. Unique electronic decoupling circuits ensures there is no electrical interference between surface coils. This feature is critically important for patient and operator workflow and enables the PA to be stationary for all exams, including breast

and musculoskeletal exams where dedicated coils are typically used for these



Date: Quote #:

08-14-2015 PR8-C36111

Version #: 22

ltem No.	Qty	Catalog No.	Description
			anatomies.
			PA Coil Specifications: S/I Coverage: 100cm. Head or Feet-first imaging. Elements: 40.
			The GEM PA array is designed to be used in conjunction with the GEM Head and Neck unit, the Large Anterior Array, the Small Anterior Array, and the GEM Peripheral Vascular Array (each purchased separately). In addition, the PA may co-reside with a additional dedicated anatomy-specific coils (each purchased separately). Additional GEM PA coils may be purchased for use in additional GEM Express patient tables.
20	1	M7000SD	1.5T Small Flex Coil with Interface - P Connector
			The Small Flex Coil is the smallest of a versatile set of high density 16-channel receive coils designed to give high quality images in a wide range of applications. The smallest of these three coils is optimized for the reduced field of view and improved image quality needed in hand, wrist, and elbow imaging applications. Together with an extra interface assembly, this coil is ideal for MR sites doing a higher volume of musculoskeletal scans.
			The high degree of flexibility is particularly advantageous when imaging patients that do not fit the constraints of rigid coils, improving the patient and technologist experience, and enabling most exams to be completed with the same level of image quality expected from dedicated coils.
			The Small Flex Coil is compatible with the Discovery MR450 and Optima MR450w systems with the standard Express Patient Table and also with the MR450w systems with the GEM Express Patient Table.
			 Includes: 1.5T Small Flex Coil. Flex Interface Module 16-channel Fixed, P-Connector. Flex Interface Module Cover.
21	1	E8911CG	GE MR Heat Exchanger Manual Cryogen Compressor Water Bypass Option
			Add a level of magnet protection with a Manual Cryogen Compresor Bypass. In case of a power failure, you can cycle municipal or facility water through the cryogen compresor and reduce cryogen loss and reduce the likelihood of quenching.
			FEATURES AND BENEFITS
			Easy to install and simple to use



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Item No. Qty

Catalog No.

Description

- Helps switch over water supply to your cryogen compressor in the event of loss of power to reduce cryogen loss
- Includes fluid supply pressure gauge, temperature gauge and flow rate meter for easy verification of operation
- Manual operation reduces unintentional switch-overs and coolant dumping during brown-outs and supply power glitches

COMPATIBILITY

Must be used with a GE MR Heat Exchanger:

- E8911CA
- E8911CB
- E8911CC
- E8911CD
- E8912CA
- E8912CB
- E8912CC
- E8912CD

NOTES:

• Item is NON-RETURNABLE and NON-REFUNDABLE

22 1 E8912CA

GE Optima MR450w Heat Exchangers - 49kW (20 Tons)

Cooling for your GE Healthcare MR system has never been so easy. GE Healthcare has partnered with the Glen Dimplex Group, a world leader in cooling systems, to offer heat exchangers designed to meet the needs of your Discovery MR System. Now you can look to GE Healthcare for your entire MR purchase and support.

This heat exchanger is highly reliable and the only unit verified to perform with the new platform of GE Healthcare MR systems. As part of your integrated GE Healthcare solution, you'll work with a single contact throughout the whole installation. A Project Manager of Installation will help with building layout, room designs, delivery and installation – every step until your system is ready to scan. Our team will work seamlessly with architects, contractors and your internal team to help ensure timely, cost-effective completion.

Once your cooling system is running, you'll get fast, highly-skilled service support managed through GE Healthcare - with the same quality and response time you expect from your MR system.

FEATURES AND BENEFITS



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Item No. Qty

Catalog No.

Description

- Designed to provide stable fully dedicated cooling for your MR system's needs
- Water/glycol outdoor-air-cooled heat exchangers to support your highest exam volumes and your full range of diagnostic procedures
- Redundant fluid pumps with automatic switchover let you keep operating with no loss of cooling even if one pump goes down
- Quad compressor, dual tandem refrigeration circuit design saves on energy while your system smoothly transitions through the 10% to 100% heat load capacity cycles of patient scanning and idling
- Quiet operation between patient exams and overnight ideal for facilities in residential areas
- Comes with installation support, installation visits, preventative maintenance visit and 1 full year of parts and labor warranty
- Installation support includes: support through GE's Project Manager of Install, GE's Design Center, technical support from the Glen Dimplex company, two (2) installation visits
- Comprehensive and quality service rapidly delivered through our CARES service solution
- 65 gallons of 100% glycol concentrate for complete system filling and diluting
- Wall mounted remote display panel provides the ability to monitor the system's operation and indicates possible system errors
- Filter kit with flow meter helps to ensure purity of water prior to entry to the MR system
- Highly recommended that Vibration Isolation Spring Kit (E8911CJ) be added for systems that will be roof top mounted

SPECIFICATIONS

- Net Cooling Capacity: 49 kW / 20 Ton
- Maximum Coolant Flow: 35 gpm (132 l/m)
- Coolant Outlet Temperature: 48 F (8.9 C)
- Coolant Temp Stability: E 1.8 F (E1.0 C)
- Max Coolant Pressure: 70 Psi (4.8 Bar)
- Refrigerant: R407C
- Ambient Temp Range: -20 to 120 F (-30 to 50 C)
- Condenser Air Flow (Approx): 18,000 Cfm
- Tank Capacity: 100 gal (378 l)
- Flow Meter Range: 4-40 gpm
- Filters: 50 micron cartridge filters



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Item No.	Qty	Catalog No.	Description
			 Supply Voltage: 460v / 3 phase / 60 Hz Coolant Connections: 2" NPTF Overall Size (L x W x H) 44" x 136" x 84.5" COMPATIBILITY:
			GE Optima MR450w 1.5T MR System
			NOTES:
			Item is NON-RETURNABLE and NON-REFUNDABLE
23	1	E8823M	Magnacoustics Genesis ULTRA Communication & Music System
			The Magnacoustics Genesis ULTRA is the only MRI Communication & Music System to interface directly with GE's MRI hardware and software. This allows software driven Auto Voice Commands from GE's computer to be delivered directly into the patient's ears for breath-hold sequences. This same interface allows the Technologist to talk directly to the patient through the console Mic even while the scan is in progress. The Genesis ULTRA also features an exclusive Patient Ready Signal. By simply depressing a small button on the handheld control an audible and visual signal is transmitted to the Technologist indicating the patient's readiness for the scan to begin. This simple step streamlines the breath-hold exam which amounts to approximately 30% of all exams. Patient Handheld Volume and Media Selection Controls with Voice Feedback interface with an FM/AM stereo, CD player, and iPod interface. This distracts even the most apprehensive of your patients by allowing them to be in control of their own environment. Additionally, the Auto Gain feature automatically raises and lowers the volume level for the patient based on the Sound Pressure Level of the MRI. Magnacoustics also provides the only patented 8-driver transducer that provides the highest sound directly to the patients ears with the MagnaLink Headset System. This patented system includes a stethoscope-style headset with the MagnaPlug (replaceable earplug) that provides 29dB of attenuation and complies with GE Healthcare MR Safety Guide Operator Manual.
			The Genesis ULTRA's See-In-the-Dark GUI Electroluminescent Backlit Technologist Control Unit enhances operation in the normally low-lit MRI environment allowing the Technologist to operate the entire system with the touch of a button.
			The Genesis ULTRA includes an integral interface for fMRI with built-in input for audio stimulation and output for responsesE
24	1	E8802MC	MR Signa Wide Security Strap Set
			Wide security strap set - includes one strap with Velcro and one strap with plastic buckle; 14 in. wide. For use with GE Signa MR systemsH



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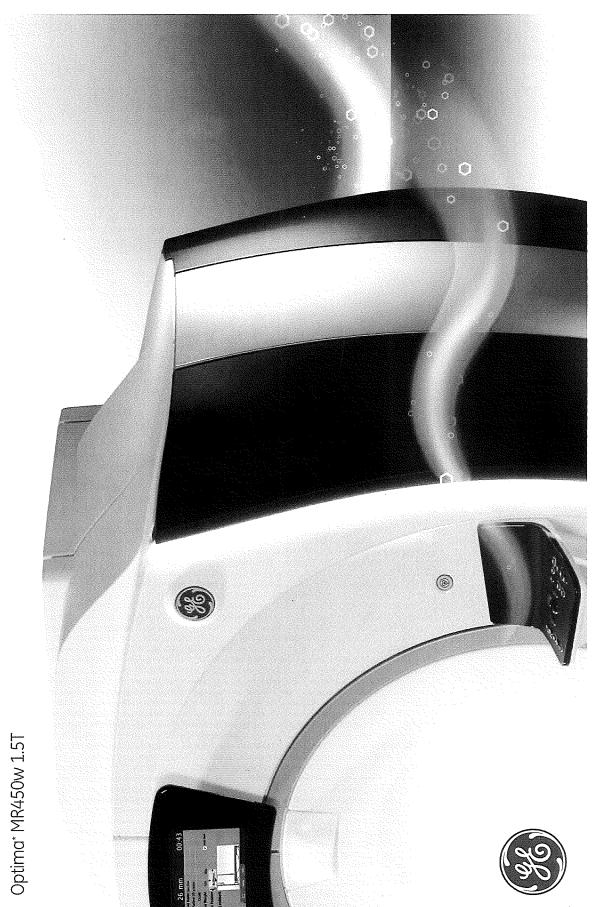
Item No.	Qty	Catalog No.	Description
25	1	E8802MD	MR Signa Narrow Security Strap Set
			Narrow security strap set - includes one strap with Velcro and one plastic buckle; 6 in. wide. For use with GE Signa MR systemsH
26	1	W0110MR	TiP MR System Upgrade Training 10 Days Onsite 10 Hours TVA
			10 Days plus 10 Hours TVA training for New MR system Installation Training. Onsite days are delivered in 3 site visits.
			Onsite training is delivered Monday through Friday between 8AM and 5PM. T&L expenses are included. This training program must be scheduled and completed within 36 months after the date of product delivery.
27	1	W0111MR	TiP MR System Upgrade Training 6 Days Onsite 10 Hours TVA
			6 Days plus 10 Hours TVA training for MR System Upgrade Training. Onsite days are delivered in 2 site visits.
			Onsite training is delivered Monday through Friday between 8AM and 5PM. T&L expenses are included. This training program must be scheduled and completed within 36 months after the date of product delivery.
	1		Rigging out HDxt NonProducts
28	1		Revels Rigging HDXT our of Vidant \$23,547
	1		Rigging out MR450w NonProducts
29	1	*	Revels Rigging out MR450w \$23,548
			Quote Summary:
			Total Quote Net Selling Price \$1,793,721.00
			(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 EOUPMENT
Type of Equipment (List Each Component)	MRI Scanner	MRI Scanner
Manufacturer of Equipment	GE	GE
Tesla Rating for MRIs	1.5	1.5
Model Number	Signa Infinity 1.5T MRI with EXCITE and Twinspeed Technology	Optima MR450w GEM 1.5T MR System ES
Serial Number	2202YRO	Unknown
Provider's Method of Identifying Equipment	Serial number	Serial number
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	n/a	n/a
Mobile Tractor Serial Number/VIN #	n/a	n/a
Date of Acquisition of Each Component	June 2005	October 2015 (estimated)
Does Provider Hold Title to Equipment or have a Capital Lease?	Title	n/a
Specify if Equipment Was/Is New or Used When Acquired	new	new
Total Capital Cost of Project(including construction, etc.)	n/a	\$2,187,568
Total Cost of Equipment	\$2,084,844	\$1,793,721
Fair Market Value of Equipment	\$0	\$1,793,721
Net Purchase Price of Equipment	n/a	\$1,793,721
Locations Where Operated	Vidant Medical Center	Vidant Medical Center
Number Days in Use to be Used in N.C. Per Year	365	365
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	MRI Imaging Procedures	
Type of Procedures New Equipment's Capable of Performing		MRI Imaging Procedures

CARING DESIGN. INSIGHTFUL TECHNOLOGY.



Every piece of equipment you own represents a balance of technology and design. The Optima MR450w not only exemplifies this philosophy, it takes it further. We've brought together the versatility of 1.5T performance with the care of a wider bore design. And that's just the beginning.

See how the Optima MR450w gives you the right experience, the right capabilities and the right investment.



MR IN A NEW LIGHT.

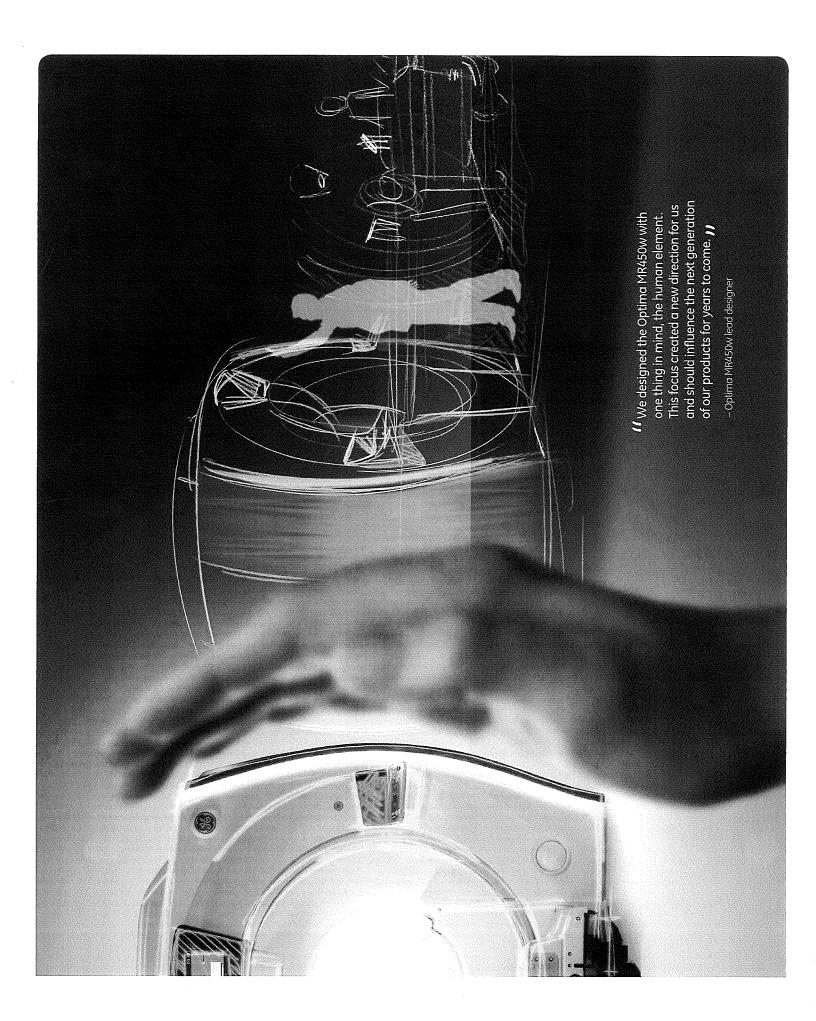
Sometimes something as simple as a light, such as the sophisticated LED lighting on the Optima MR450w, can be enough to get people's attention. This small, but important design choice represents our focus on the human element in MR

Using the symbol of caring hands as our inspiration, the Optima MR450w was designed to be welcoming to the patient and intuitive for the technologist.

We listened to patients who asked us for a comfortable scan experience. We not only widened the bore and created soft, flexible coils, but we completely re-designed the tables surface with different cushon densities to help alleviate pressure points for a more relaxing exam.

We also listened to technologists describe their use of the on-system controls. So we built a sleek, ergonomically-friendly interface to mimic the same consumer designed devices they use in their home every day. This allows them to facus their attention where it belongs on their patients.

The result? An IMR system inviting to patients and user friendly for technologists.



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CUTTING-EDGE MADE PRACTICAL

Sometimes all you need is the right tool for the right job. With the Optima MR450w, we've taken the right amount of technology and combined it with the right gantry design. Namely the performance you only get from 1.5T with the open architecture of a 70 cm wide bore. It's cutting-edge technology fine-tuned to meet your everyday needs.

Optical RF (OpTix)

OpTix Optical RF offers high channel count, analog to digital-optical signal conversion where it matters – inside the scan room to minimize noise and signal degradation, but away from the patient to enhance comfort and safety.

Usable FOV

Our 70 cm flared, open bare design with a large 50 x 50 x 50 cm field of view results from excellent homogeneity, gradient linearity and RF uniformity. In order to properly image off-center anatomy such as a shoulder or hip, you need a large, usable field of view, which the Optima MR450w delivers.

Sradients

(2)

Gradient speed, accuracy and reproducibility often determine the success of demanding acquisitions like fMRI, DTI and Fiesta. The gradient and RF body coils are water and air-cooled for optimum duty-cycle performance, short TR's and TE's, producing sharp and clear images.



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EMBRACE THE PATIENT.

traditional coil design can sometimes emphasize function over comfort. And an uncomfortable, moving patient can sometimes lead to poor image quality and Coils are to MR what lenses are to a camera. They help focus the energy of MR into a clearer picture of your patients. However, no two patients are alike and time-consuming re-scans.

exam. Crafted to embrace the patient, these flexible coils make for a relaxed scan Not any more. The Geometry Embracing Method (GEM) Suite is designed to bring experience. This also makes it easier for technologists to correctly position their a new level of comfort to patients, minimizing anxiety and motion during the patients without strain or difficulty.

comfortable exam with open, flexible coils that naturally design. With GEM Suite, patients can expect a more If We've completely changed how we think about coil follow the contours of the human body. - GEM Suite lead coil engineer

> for all exam types, lightweight, flexible coils and a re-designed table surface that Imagine what your patients will say when you can now offer feet-first imaging alleviates pressure points. They'll probably thank you.

GEM express patient table and posterior array density, posterior RF coll array. The integrated help eliminate the need to reposition patients posterior array supports both head-first and feet-first imaging for all anatomies and can within an exam, as well as the need for coll The GEM express patient table is a mobile patient transport with an embedded high

GEM anterior array

The GEM anterior array facilitates extended cardiac imaging. It is lightweight, flexible, coverage of chest, abdomen, pelvis and thin and pre-formed to conform to the patient's size and shape.

GEM lower extremity array

(2)

facilitates imaging of the thighs and lower elements to accommodate innovative, self-supporting hinge various potient sizes and simplify The GEM lower extremity array design between the upper and lower legs. The coil incorporate outlent setup.



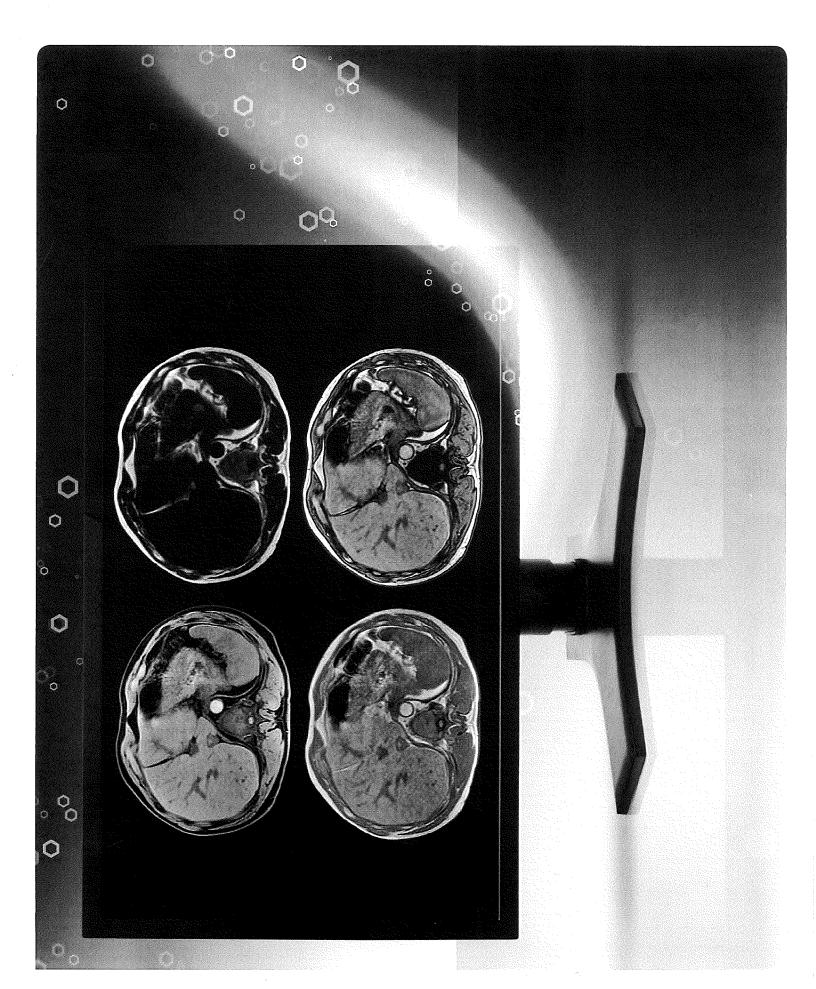
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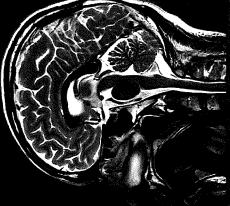
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SEE TO UNDERSTAND.

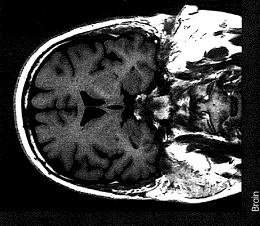
Even with the right balance of design and technology, intuitive applications are what truly drive better understanding of what you need to see. The Optima MR450w offers the latest advanced applications to help you utilize the full potential of 1.57 MR imaging.

How about acquiring contrast-quality images without using contrast? With Inhance DeltaFlow, one of the many applications available on the Optima MR450w, you can. Patients can now be evaluated without contrast injections. That's a win-win for you and the patient.

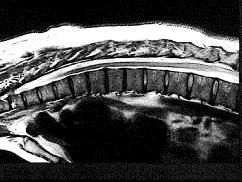




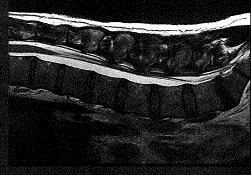
T2 PROPELLER Sagittal 384 x 384 5 mm



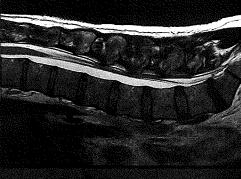
T1 FLAIR PROPELLER Coronal 288 x 288 3 mm



T2 PROPELLER Sagittal 320 x 320 3 mm T-Spine



T2 frFSE Sagittal L-Spine



448 x 256 4 mm

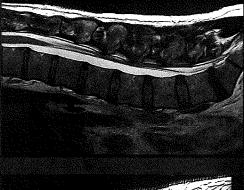
T2 frFSE Sagittal 384 x 224 3 mm

384 x 288 2.2 mm

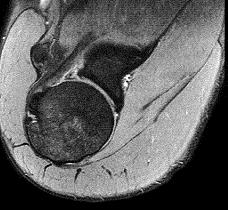
3D SWAN Axial

C-Spine









320 x 256 2.4 mm 3D MERGE Shoulder

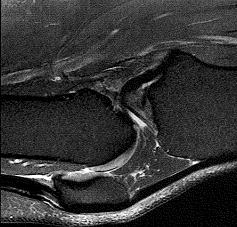


T2 IDEAL Water Image



320 x 224 2.2 mm Toes

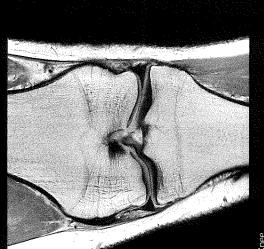
PD FSE Fat Sat Coronal 320 x 256 4 mm



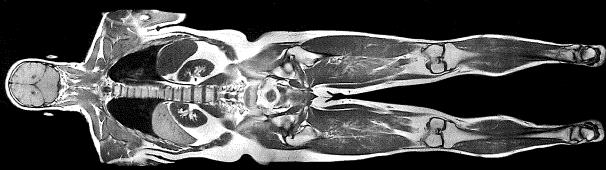
PD FSE Fot Sat Sagittal 384 x 224 3.5 mm

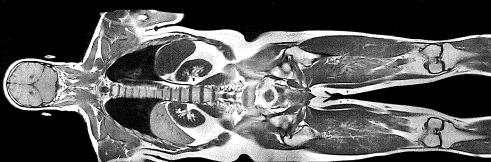


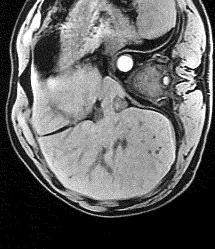
T2 frFSE Fat Sat Coronal 320 x 224 3 mm



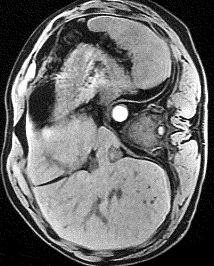
1024 x 416 3.5 mm PD FSE Coronal

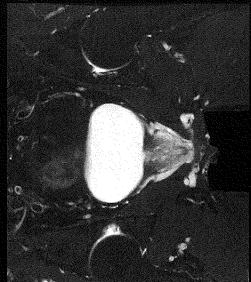






320 x 192 4.4 mm LAVA Flex Axial Abdomen



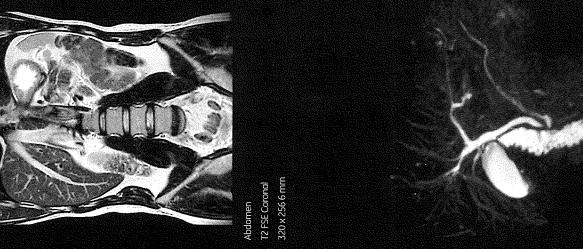


T2 frFSE Fat Sat Coronal $320 \times 2564 \,\mathrm{mm}$ Male Pelvis

384 x 256 FOV 44 cm

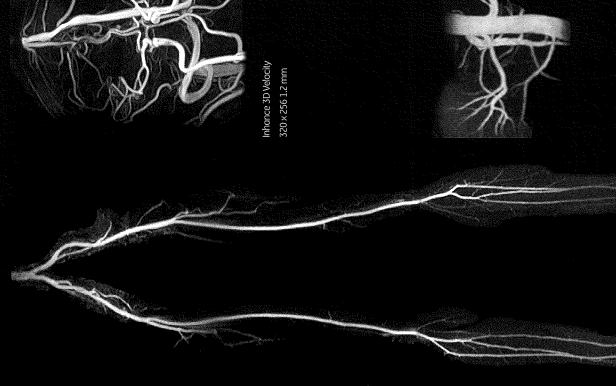
T1 FSE Coronal Whole Body

5 station pasted





320 × 320 1.6 mm 3D frFSE



Inhance Delaflow 3 stations w/ ARC

Inhance Inflow IR 256 x 256 2 mm

INTUITIVE APPLICATIONS.

CONTRAST WITHOUT CONTRAST

Non-contrast brain perfusion. Quantitative perfusion imaging without contrast.

Inhance Inflow IR

breathing imaging of the arterial and venous Consistent and reliable non-contrast, freevascular, such as the renal and portal vein.

Inhance DeltaFlow

extremity/peripheral vascular three-station High-resolution, rapid, non-contrast lower imoging typically in less than six minutes.

Inhance 3D Velocity

High-resolution, fast, non-contrast imaging of the arterial and venous structure in the brain.

VIBRANT Flex

Generates up to four contrasts with high-resolution suppression failures in breast imaging, even over a in just one short scan and virtually eliminates fat large FOV with irregular anatomy.

VIBRANT

including bilateral shimming to ensure uniform bilateral fat saturation. Lays the foundation of breast MRI with a high combined spatial detail and scanning speed

Breast Biopsy

In-room Operator Console (IROC) supports needle localization for breast biopsy.

NEURO

3D FSE-based sequence for isotropic resolution in all contrasts (T1, T2, & T2 FLAIR).

High-resolution visualization and delineation of small vessels and microbleeds

PROPELLER

Motion-insensitive T1 FLAIR, T2, T2 FLAIR and DWI for efficient imaging of uncooperative patients.

Improves grey-white matter contrast in the spinal cord.

MUSCULOSKELETAL

PROPELLER

Motion-insensitive T1, T2 and PD imaging to improve the visualization of subtle structures such This unique fat/water separation technique provides multiple contrasts from one acquisition for consistent, uniform fot suppression virtually as cartilage, meniscus, ligaments and labrum.

CartiGram

every time.

articular cartilage integrity, detect early cartilage degeneration and monitor patient progress. A non-invasive imaging method to assess

A rapid 3D sequence for consistent and reliable fat saturation in one breath hold. LAVA Flex

MRCP (MR cholangiography)

High-resolution reliable visualization of the biliary

PROPELLER

Motion-insensitive, free-breathing T2 abdominal Imaging.

Whole Body w/ GEM Suite

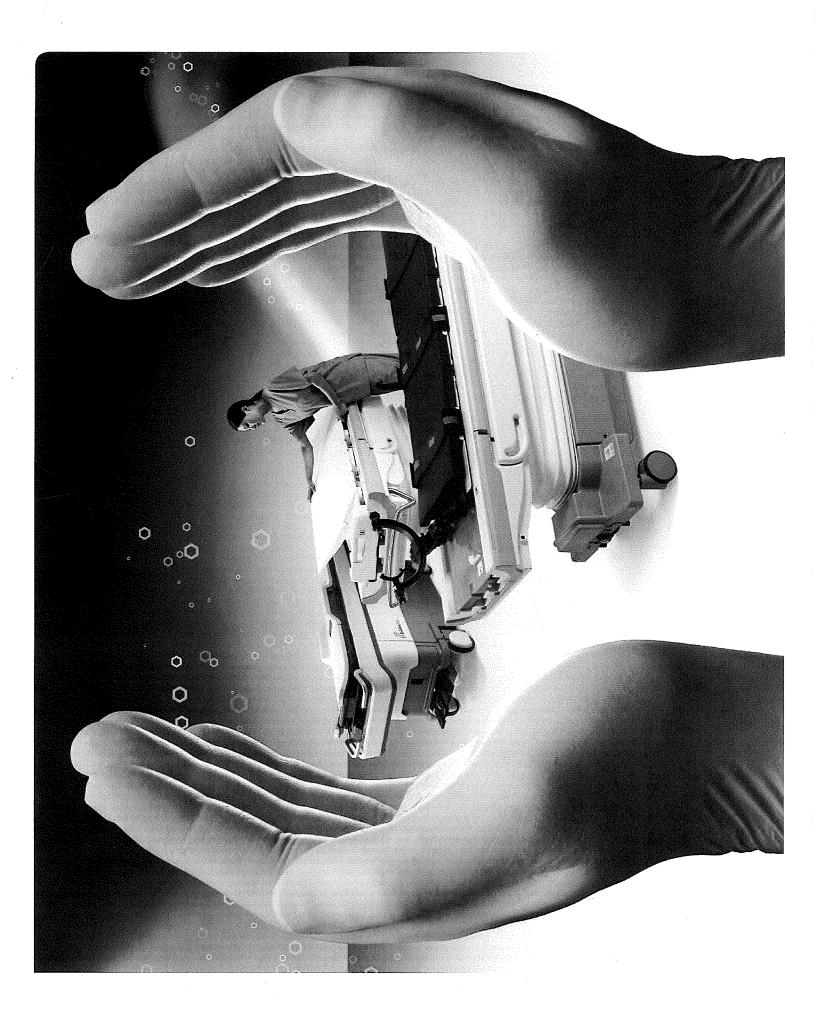
Perform whole body imaging without repositioning the patient or coils.

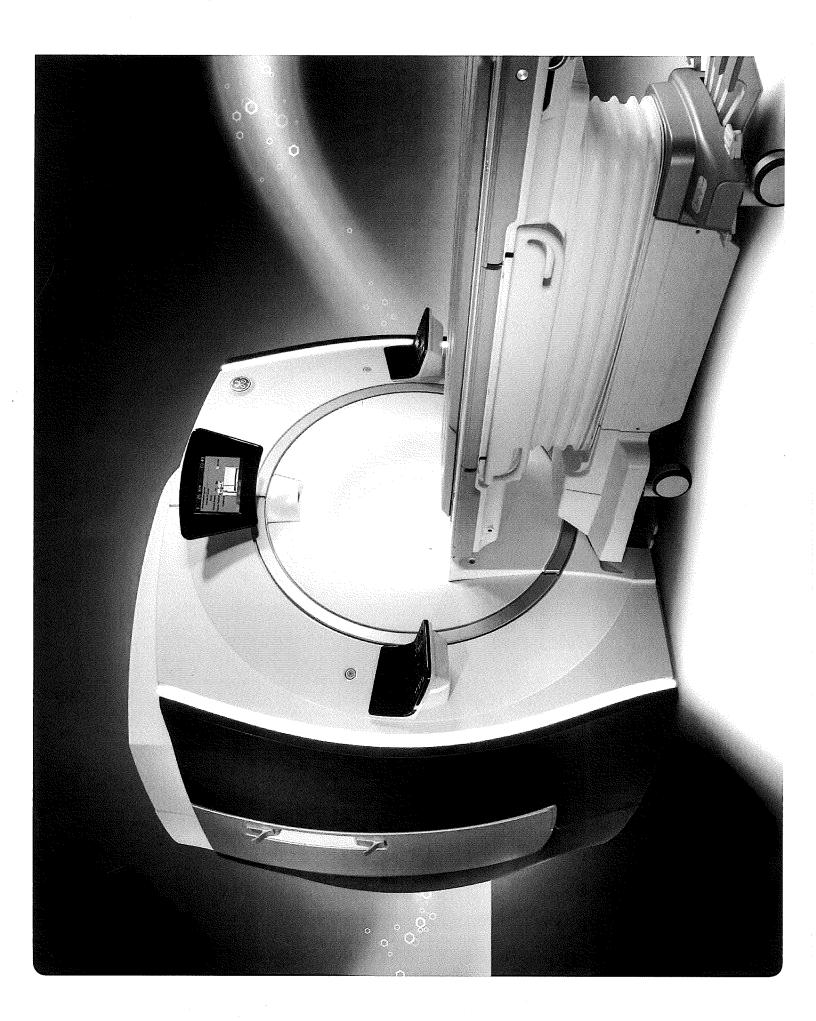
Non-invasive measure of liver stiffness.

Ability to visualize pathology and measure ADC

values in a single breath hold in the liver and beyond.







This is what just one MR expert felt when they saw the Optima MR450w for the first time. It exemplifies our goal to design an MR with as much emotion as technical prowess. This approach has led us to develop one of the most patient and user-friendly MR systems we've ever built.

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WHAT WILL YOU FEEL WHEN YOU SEE IT FOR THE FIRST TIME?

MR-0430-04.11-EN-US

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About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug Optima, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our "healthymagination" vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com

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GE Medical Systems General Electric Company

General Electric Company P.O. Box 414, Milwaukee, WI, 53202-0414 gemedical.com

Pitt County Memorial Hospital 2100 Stantonsburg Road Greenville, NC 27834

Date:November 14, 2002
Quotation Number:DYCC2XB

GENERAL ELECTRIC COMPANY is pleased to submit this quotation for the products described herein, subject to the enclosed Terms and Conditions of Sale for GE Medical Systems Products ($\underline{F3730}$ $\underline{10/02}$) and the following:					
• Special Terms:	7985 R	3/01			
• Warranty:	F3705 I	F3705 R10/02			
• Terms of Delivery:	C.I.F.				
• Quotation Expiration Date:	January	January 14, 2003			
• Terms of Payment:	Install	0% Due on delivery of major components and prior to installation, Balance due on completion of Installation nd/or availability for first use.			
• Contract Price Protection:		ths from date of contract execution, subject to see by .5% per month after such 12 month period			
GENERAL ELECTRIC COMPANY:		BUYER: Pitt County Memorial Hospital			
· Submitted By:	0.02	• Agreed To By:			
Chad Brautigam Date Sales Representative GE Medical Systems 14045 Ballantyne Corp Pl #140 Charlotte, NC 28277 Phone: (800) 531-1531		Authorized Customer Date Representative			
• Accepted By:		Title			
Date					
• Credit Approval By:					
Date					

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Pitt County Memorial Hospital 2100 Stantonsburg Road Greenville, NC 27834 Date:November 14, 2002
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QTY	CATALOG	DESCRIPTION	PRICE
		Signa Twinspeed W/Extra Software	
		SIGNA TWINSPEED W/EXTRA SOFTWARE	
		Base System	
1	M3000TC	1.5T Signa Infinity With EXCITE and TwinSpeed Technology	
		The TwinSpeed SYstem with Excite (EXpanding Applications with Multi-channel Imaging Technology) Phased Array is Designed to Combine Premium Imaging Performance with Patient Comfort For the First Time in MR Imaging There is No Need to Compromise - the Twin Gradient	

CX150 Magnet with K4 Advanced Cryo Cooling Technology:

Technology Gives the User the FLexibility to Optimize all Elements of the System for Improved Performance of Applications and Image Quality.

Signa CXK4 Magnet Technology Combines High Performance Imaging With a Lightweight Compact Design to Facilitate Efficient Installation. The CX K4 Magnet Design Provides High Homogeneity Using GE-designed Super Conductive Shim Coils. These Super Conductive Shim Coils Improve System Stability to Ensure Excellent Imaging Performance For Whole Body Applications.

- o Industry-unique K4 Cryo-cooling Technology Achieves One of the Lowest Helium Consumption in the Industry by Liquefaction of Helium Instead of Cooling Down Magnet Cryostat.
- o Helium Boil-off Rate is Typically 0.03 lit/ hours Under Normal Operating Conditions.
- o Helium Refill Once Every Three Years Eliminates the Need for Additional Down-time to Refill.
- o Fast Dynamic Shimming with 18 Super Conductive Shim Coils Offers High Homogeneity for All Applications.
- o Signa Infinity System Sites in 362 Square Feet.
- o Lighweight 8500 Lbs. (3863kg)
- o Signa Infinity Sites Easily in Above-the ground Floor Installations.

Magnet System Enclosures:



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The Signa Infinity Magnet Enclosures are Designed to Maximize Patient Comfort. The Wide Open Enclosures Provide a Dual Flare Patient Friendly Short Bore Appearance.

- o Enable Patients to see Outside the Magnet During Many Types of Applications
- o Offer Better Access to the Patient by the Operator
- o Provide a 60-cm Patient Cylindrical Aperture-opening
- o Patient Bore is (LxWxH) -70cm x 60cm x 60cm
- o 185 cm Total System Length From Cover to Cover and 172 Effective Magnet Length
- o Patient Positioning Features
- o Laser ALignment Lights
- o Axial, Sagittal, Coronal Reference Planes
- o Dual Table Control Panels

Patient Comfort Module:

- o Dual-flared Patient Bore Creates an Open Facade
- o Two-way in Bore Intercome System Allows Constant Communication Between Technologist
- o In Bore Fiber Track Lighting System Illuminates Patient Bore to Create Friendly Atmosphere
- o In Bore Patient Ventilation System May Be Adjusted to Comfort the Patient During the Exam
- o Head Coil Mirror Offers the Patient the Ability to See Out of the Head Coil
- o In Bore Music System (Optional Relieves Patient Anxiety by Providing Music During the Exam

Patient Table:

Lightweight Mobile Patient Table is Designed to be Undocked/removed From the Magnet to Offer Patient Transportation and Patient Preparation

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DESCRIPTION

PRICE

Outside the Exam Room. The Patient Table is Designed to Accomodate Patient Weight up to a Maximum 159 kg (350 Lbs)

- o Quick Release Patient Cradle is Designed to Allow Operator to Quickly Remove Patient From Imaging Room in Emergency Situations
- Designed to Provide Uniform RF Fields for o Variable Table Height from 26 Inches to 38 Inches Allows for Easy Patient Transfer From Wheelchairs or Transport Carts.
- o Integrated Patient Guard Rails Double as IV Injector Board and Arm Support to Permit Easy Patient Handling and Preparation
- o Motorized Longitudinal Cradle Movement Allows for Easy, Reproducible Patient Positioning. Precision Alignment Lights Integrated into Magnet Enclosure Allow for Accurate Patient Positioning

High Performance Gradient Subsystem:
The Innovative Design of the TwinSpeed System
is Comprised of Two Sets of Actively Shielded
Gradient Coils Integrated Into One Gradient
Module

Zoom Mode:

The Zoom Mode Provides Premium Performance with a Maximum Amplitued/Strength of 40mT/m or 4.0 g/cm in All Three Axes (Add Effective Gradients) for Advnaced Imaging Techniques with High SNR Applications. The Zoom Mode is Optimized to Operate at a FOV of 40cm X 40cm in the X and Y Directions and 35cm in the Z Direction. The Z Dimension is Crucial to Enable Enhanced Performance. Higher Resloution and Better Image Quality.

- o A SLew Rate of 150 T/M/s From Zero to Maximum Amplitude for All Three Axes Provide an Outstanding Resolution and
- o Shorter TE/TR Imaging Capabilities in all Planes.

Whole-Body Mode:

The Whole Body Mode Provides Excellent Performance for General Radiology and Off-center Imaging Capabilities. The Whole Body Mode is Optimized to Operate at a FOV of 48cm X 48cm in X,Y, and Z Directions with Maximum Amplitude/ Strength of 23 mT/m or 2.3 g/cm in all Three



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DESCRIPTION

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Axis for High Resolution Whole-Body Applications Like Sagittal Spine, Shoulder and Wrist Imaging, Whole Body T1 Screening and CE-MRA.

A Slew Rate of 80 T/M/s From Zero to Maximum Amplitude for all Three Axis Provides High Resolution, Coverage and Image Quality.

(Add Effective Gradients)

The TwinSpeed Provides the Ultimate Productivity For All Imaging Techniques by Having the Capability to Optimize Each and Every Application for Scan Time, SNR, Resolution and Image Quality. The User has the FLexibility to Switch Between the Two Gradient Modes (Zoom and Whole Body) and May be Used to Improve Spatial Resolution, SNR, CNR, and Slice Coverage.

Quiet Technology:

The Creative Design of the Quiet Technology Reduces Loudness of the TwinSpeed System by 40% This Reduction is Critical for Pateint Comfort. The Quiet Technology is Considered as the Enabler of Premium High End Applications. Without it, Patients will Find it Difficult Tolerating Higher Noise Levels Generated while Driving the System to Operate at any Advanced Application Technique.

The Quiet Technology Innovation has Two Elements

- o The TwinSpeed Gradient Coil is Positioned Inside a Vacuum Chamber that Reduces the Noise Level Penetrating to the Patient. Vacuum Level is Monitored with a Remote Diagnostic Equipment.
- o Damping Material Specially Designed Noise
 Dumping Material is Integrated into the
 Design of the Transmit/Receive RF System to
 Improve Noise Reduction in the System

The Other Features Are:

- o Actively Shielding Gradient System with 18 Superconducting Shim Active Channels
- o A 60cm Diameter Patient Aperture with Quadrature Drive RF and High Performance Gradients are coupled into the Integrated Body Module. The Integrated Body Module is Designed to Provide Uniform RF Fields for Excellent High-resolution Whole Body Imaging Capabilities.
- o Variable FOV from 1 cm -48 cm

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DESCRIPTION

PRICE

- o High Linearity Gradient Field
- o Flexible Slice Thickness Allows Very Thin Slice Acquisitions for High-resolution Imaging
 - o 3D (0.1mm to 5.0mm)
 - o 2D (0.7mm to 20.0mm)
 - o Short TEs and TRs Provide Improved Diffusion Weighted Imaging (up to bvalue of 1000) with Less Susceptibility Artifacts and Faster Contrast Enhanced 3D Angiography Respectively
 - o Ultra-short Echo Spacing Delivers High Temporal Resolution EPI Studies
 - o Provides Multi-slice Myocardial Perfusion Capability (Refer to Optional Cardiac Package)

Radio Frequency Subsystem:

The Digial RF Subsystem Provides Excellent RF Power and Uniformity for all Image Acquisitions. Quadrature Coil Technology is Integrated Throughout for Excellent Imaging Performance. The Included Phased Array Kit Provides Total of Four Digital RF Subsystems as Standard (and Additional Four Totaling Eight Digital RF Systems are Available as Options) to Enable Simultaneous Linear and Quadrature Phased Array Imaging.

The Signa Infinity SmartSpeed RF System Provides Two RF Coils as Standard:

- o Standard Quadrature Transmit and Receive Head Coil for Neurology Applications
- o Integrated Quadrature Transmit and Receive Body Coil for General Body Applications. Quadrature Transmit/Receive RF Body Coil is Combined into Integrated Body Module that Combines RF and Gradient Coil Technology into a Single Module.

All Other Surface Coils Are Optional for Signa Infinity System and May be Configured to Meet Specific Applications Requirements. (e.g. Shoulder, Extremity, CTL Spien, Cardiac Phased Array).

The Signa Infinity Unique Design Allows



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DESCRIPTION

PRICE

Compatibility with Many Coil Manufacturers to Cost-effectively Suite your Department Needs.

- o Phased Array System Design Provides a State of-the-art Digital Transceiver, Including New Digital Pulse Controller, Digital RF Signal Generator, Four (4) Multiple Digital RF Filters and Ultra Low Noise PreAmplifiers that Provide Superior SNR for High Resolution Imaging
- o High Performance Phased Array RF Technology Allows the User to Use Phased Array or Non-Phased Array Coils
- o 16 kW R.M.S. Maximum Amplifier Rating
- o Receiver Sampling Bandwidth 1000Hz to 1MHz
- o Quadrature Transmit/Receive Head and Body Coil
- o State-of-the-art Digital Transceiver Including:
- o New Digial Pulse Controller
- o New Digital RF Signal Genrator
- o Digital RF Receiver
- o Digital RF Filter
- o Ultra Low Noise Pre-Amplifier Superior SNR for High Resolution Imaging
- o The 60cm Diameter High Pass Quadrature RF Body Coil Provides High SNR with a Patient Friendly Aperture.
- o The Large Open Quadrature Transmit/receive RF Head Coil is 28cm in Diameter and Provides Excellent SNR. The Large Open Patient Friendly Design Allows the Patient to See Through The Coil to a Unique Mirror System, Which Enables Patient to see Outside the System.
- o Unique Ultra-low Noise Pre-amplifier Design Minimizes Noise Levels to Ensure Excellent SNR for all Surface Coil Imaging. A Wide Range of Optional Surface Coils is Compatible.
- o The RF/Power Distribtion Unit Cabinet Contains the RF Amplifiers, RF Power Monitor



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DESCRIPTION

PRICE

Power Supplies for the Magnet Enclosure System Components and Power Distribution Module. The PDU Contains an Unregualted 280/400/415/480 volt, 50/60 Hz Transformer with Power Filter. Single Cabinet Design Facilitates Ease in Siting.

Computer System:

Utilizing Advanced Technologies, the Signa Infinity Platform Provides Unsurpassed Computing Imaging Reconstruction and Imaging Processing Power that Significantly Enhances Clinical Productively. This Platform Provides the Foundation for the Real Time Interactive Revolution in Magnetic Resonance Imaging.

- o Intuitive Workstation Based Operator Console Provides the User with Both Optimum Productivity and High Performance.
- o Large Screen User Interface for Controlling Scan Acquisition Easily, with Virtually all Parameters Available at Glance From a Single Screen
- o High Performance Silicon Graphics Workstation. The SGI Processor Incorporates 64 Bit Technology with 512 MB Memory
- o Three Plane Localizer Pulse Sequence
- o Robust Lx Software and Scantools 2000
- o 512 MB CPU Memory
- o 18 GB Hard Drive/Short Term Archival of 90,000 (256 x 256) Image Capacity. Virtually all Clinical Operations are Managed Through Multiple "Virtual Disktops" or Applications Managers. Operators Can Effortlessly Move Back and Forth Between These Environments Simply by Point and Click Commands
- o Pathfinder Personal Computer is Provided for Gating and Respiratory Waveform Display on the LCD Color Display Monitor and Provides On-line Tutorial Support of all Operator Functions via Sherlock - a Multimedia CD-ROM

Computer Architecture:

Simultaneous Computer Architecture Helps Insure that Image Display and Processing Speeds Remain Consistent Regardless of Other Processes



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DESCRIPTION

PRICE

Running Simultaneously (Such as Scan, Reconstruction, Film, Network and Archive). Nextwave Architecture Also Allows Advance, Computationally Intensive Image Processing Features Such as MPR, MPVR, IVI, 3D-MIP, and 3D Surface Rendering to Run Simultaneously with Othe Processes Without a Significant Change in Speed.

- o Fully Distributed/Parallel Processing Architucture with up to 13 Separate Processors
- o Unparalleled Simultaneity Including: Scan Prescription, Image Processing, Filming Archiving, and Networking
- o Computer Architecture also Includes a a Fully Scaleable State-of-the-art Vector Reconstruction Engine

Archive Storage Device:

Data Archive is Provided by a Maxoptic Magnetic Optical Disk that is DICOM 3.0 Compatible. The Maxoptic Magnetic Optical Disk is Erasable Re-writeable Media with 1.3 GB or 1.6 GB Unformatted Capacity.

o Stores Up to 15,000 (for 1.3GB) or 30,000 (for 2.6GB) Loss-less jpeg Compressed 256 x 256 Image Per Mod

DICOM:

Exams Can Also be Selected and Networked Between Signa Infinity and any Imaging System or Hardware Supporting the DICOM 3.0 Protocol for Point-to-point Send, Receive and Pull/query and DICOM Print (no Broadcast). DICOM 3.0 Modality Work List Service Class Supported with Optional ConnectPro Software.

- o DICOM 3.0 Storage Service Class
- o Service Class User (SCU) for Image Send
- o Service Class Provider (SCP) for Image Receive
- o DICOM 3.0 Query/Retrieve Service Class
- o DICOM 3.0 2.6 GB/5.2 GB MOD Media Service Class
- o DICOM 3.0 Print Service Class

Systems Applications Standard Software Features

o 2D Standard Multi-slice Imaging Up to 120 (256 x 256) Slice Locations Including

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QTY	CATALOG	DESCRIPTION	PRICE
		Contiguous Slices O 3D Imaging: 12-124 Slices Increments of Two O Direct Axial, Sagittal, Coronal, Oblique and Double-Oblique Plane Imaging O Three Plane Localizer Pulse Sequence O 2D Inversion Recorery (IR) O Sequential and Non Sequential Acquisitions O 2D Spin Echo (SE) O 1,2,Or 4 Symmetrical Echoes O Two Asymmetrical Echoes O Standard, Classic or Contiguous Slice O 2D Sequential Gradient Echo and 3D (GRE) O 2D Multi-Planar Gradient Recalled (GRE) O 1, 2 Echos O 2D/3D Spoiled Gradient Recalled (SSPGR) O 2D/3D Fast Spin Echo O Fast Spin Echo XL O 2D/3D Fast Gradient Echo (FGRE) O SPECIAL (SPECtral Inversion at Lipid) O 2D/3D Time of Flight (TOF) Angiography O Enhanced 3D Time of Flight (TOF) MR Angiography O Elliptic Centric Reording	
1	M1000NW	InSite Interactive Platform Global Modem	
1	M1060JW	1.5T/1.0T Sumitomo Compressor	
		Compressor for CXK4 Magnet Subsystem for 1.0T or 1.5T Magnet Configurations. Compatible with Fixed and Relocatable Magnet Configurations. Compressor is Water Cooled and All Water Cooling Systems Must be a Closed Loop Design to Eliminate the Possibility of Magnetic Contaminants Entering Into the System.	
1	M3085TA	Body RF and Integrated Module for TwinSpeed System	
		RF/Gradient Integrated Body Module Coil (BRM-F)	
1	S7501TM	This can Only be Offered With the Purchase of a New Signa TwinSpeed MRi System. The Short Bore CXK4 Magnet is a High Homogeneity Magnet Design Manufactured by GE Utilizing Advanced K4 Cryo Cooling Technology With Lower Boil-Off. The Actively Shielded Magnet is Designed with Wide Open Enclosure as Well as the Quiet Technology with the Vacuum Enclosures. The Excellent Homogeneity of the CXK4 Magnet is Achieved with	
		the Innovative 18 Super-Conductive Shim Coils Integrated Into the Magnet. This Unique Technology Allows for Uniform Fat Suppression Over Large FOV as Well as for Excellent	



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QTY	CATALOG	DESCRIPTION	PRICE
		Off-Center Fat Suppression Imaging Techniques.	
		System Enclosures	
		The Signa 1.5T TwinSpeed Magnet Enclosures are Designed to Maximize Patient Comfort. The Wide-Open Enclosures Provide a Dual Flare Patient Friendly Short Bore Appearance. The Flared Opening to the Bore is Inviting, and Effective in Increasing Productivity With Fewer Interrupted Studies Due to Patient Anxiety.	
		The TwinSpeed System Design Provides a 60cm Patient Cylindrical Aperture Opening. The Enclosure Length is 185cm Total System Length From Cover to Cover; 172cm Effective Magnet Length.	
		The Signa 1.5T TwinSpeed System is Easily Recognized by the Unique "Steel Blue" Design of the Enclosures With the Blue Ring in the Front of the Magnet.	
1	M3043TC	Site Collector Kit for 1.5T TwinSpeed Fixed System with Excite and Phased Array	
		Software	
1	M3033LL	ScanTools 10.0 (Pre-requisite Octane Host Computer)	
		ScanTools 10.0 Offers Performance that is Desirable in a Modern-Day 1.5T Infinity System. It Not Only Includes a Set of Standard Sequences But Also Relatively High-End Packages, Such as EPI, MRA, Bolus Chase, Cardiac Imaging, Interactive Imaging and Image Filters. The Listing of the Features is as Follows:	
		o LX Tools System Software	
		o Ultra-Short TR	
		o Body Pak Consisting of Dual Echo SPGR for In-phase and Out-of-Phase Liver Imaging, FRFSE Opt for Breathheld Images with Blurring Cancellation and SSFSE-ETL for Improved MRCP Imaging.	
		o SSFE-XL is a Modification of the Orginal SSFSE Sequence that allows More Flexibility in the Selection of Maximum ETL and Also Other Values of TR, TE, and rBW. Useful in MRCP Studies.	
		o ACGD Plus Key	



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DESCRIPTION

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SmartPrep 2000

SmartPrep 2000 Enables High Quality, Fully Automated Single and Multi-Station Contrast Enhanced MRA Through the Integration of Features Such as:

- o Automated Triggering Via SmartPrep
- o Robust Fat Suppression with SPECIAL (Special Inversion at Lipids)
- o High Resolution Imaging with Elliptic Centric Encoding
- o Efficient Multi-Station Scouting Capabilities
- o Ultra-Flexible Multi-Station Graphic Prescription
- o Precise Multi-Station RF Tuning with Prescan Ahead
- o Automated Table Motion
- o Automated Coil Switching
- o Up to 1024 ZIP Reconstruction

iDrive Pro

iDrive Pro Enables Real Time Interactive Imaging at Up to 8 Frames/Second (Gradient Platform Dependent) with a 2D FGRE/FSPGR Pulse.

- o Interactive with a 2D GRE/FSPGR Pulse
- o Intuitive Point and Click iDrive User Interface Makes Extensive Use of Live, On-Image Navigation Icons.
- o Geometry Controls with iDrive Pro. Includes: Image Plane Location, Obliquity, Rotation, Center of FOV and FOV Size.
- o Contrast Controls Include the Ability to Toggle On/Off Spatial Pre-Saturation Pulses, Flow Compensation and RF Spoiling. In Addition, Application of a Non-Selective IR Pulse May Also be Applied in Real Time.
- o Live Thumbnail Image Icons are Available for Location/Contrast Bookmarking as Well as the Three Plane Home Images. A Simple Click of Any of These Images Will Immediately Return



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DESCRIPTION

PRICE

the User to the Image Represented by the Thumbnail. A 235 Circular Image Buffer is Also Included, with the Added Bonus that Any Image in the Buffer can Act as a Bookmark.

- o A Suite of Localization Tools Including Draw Line, 2 Point and 3 Point Tools, are Included to Facilitate Localization of Complex Anatomy.
- o Once Localized, This Anatomy Can be Quickly and Easily Attached to Subsequent Imaging Series Through the Use of the iRx Feature.
- o Other Interactive Abilities Include Swap Phase/Frequency, 10 Level Undo/Redo, Built-in Time, AutoNEX and Pause.
- o A Set of Display/Review/Save Tools are Also Included with iDrive Pro.

Basic Cardiac Sofware for MR Provides Excellent Anatomical Imaging of the Heart Using a Variety of Sequences and Techniques Such as:

- o Double Inversion Recovery Sequence for Black Blood Imaging
- o Cardiac Gated Inversion Recovery Fast Spin Echo Sequence Provides Excellent Visualization of Cardiac Anatomy.
- o Optimized Inversion Recovery RF Provides Excellent Suppression of Blood for Superior Black Blood Imaging.
 - o Triple Inversion Recovery Sequence for Black Blood Imaging with Spectral Suppression
 - o Fast Cine for Bright Blood Imaging
 - o Cardiac Gated Fast Gradient Echo Technique
 - o Evaluation of the Full Cardiac Cycle (Full R-R Coverage)
 - o Single Breathhold Imaging
 - o In-Phase and Out-of-Phase Imaging
 - o Variable View Sharing for Scan Time Control
 - o Retrospective Image Reconstruction
 - o User Defined Number of Cardiac Phases



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QUOTATION

Pitt County Memorial Hospital 2100 Stantonsburg Road Greenville, NC 27834 Date:November 14, 2002 Quotation Number:DYCC2XB

QTY CATALOG DESCRIPTION PRICE o K-Space Data Resorted According to Temporal Position in Systole and Diastole for Reduced Temporal Blurring o Bright Blood Technique for the Evaluation of Cardiac Anatomy Throughout the Cardiac Cycle The Applications are: o Evaluation of Cardiac Mass Fatty Infiltration of Myocardium o Evalution of Right Ventricular Dysplasia o Blood Coronary MRA o Cardiac Valve Visualization o Visualization of Cardiomyopathy o Valve Regurgitation and Insufficiency o Wall Motion Evaluation o Ejection Fraction Calculation Using the Single Plane Area Length Method o Left Ventricular Measurements Including Fractional Shortening o Excellent Blood/Myocardium Contrast for Post-Processing o Coronary Artery Visualization (Please Also Note that Digital Cardiac Gating is Standard with the System) FuncTool 2000 Software for LX Post Processing Analysis for Diffusion Image Processing, Task Activation, Dynamic EPI, and Contrast Uptake Analysis. Compatible with All Signa Infinity Systems. Includes Parametric Map Capabilities that Enable Quantitative Assessment for Dynamic Imaging Studies as Well as Apparent Diffusion Coefficient Mapping Capabilities for Diffusion Weighted Imaging. 1 M3033JS ASSET ASSET (Array Spatial Sensitivity Encoding Technique) is an Ultra Fast MR Imaging Technique Compatible with Phased Array Coils. ASSET can be Used:

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PRICE

QTY CATALOG DESCRIPTION o To Reduce Scan Time o To Obtain Higher Spatial Resolution in the Given Scan Time o To Obtain More Slices in the Given Scan Time o To Achieve Higher Temporal Resolution for a Given Scan Time ASSET is Compatible with: o 2D Fast Gradient Echo (2D fGRE) o 2D Fast Soiled Gradient Echo (2D fSPGR) o Enhanced Fast Gradient Echo 3D (eFGRE3D) o 3D Time-of-Flight Spoiled Gradient Echo (3D TOF SPGR) o 3D Time-of-Flight Gradient Echo (3D TOF GRE) Pulse Sequence Only Benefits: MR Applications with High SNR or CNR are Ideally Suited for the ASSET Technique. Key High SNR or High CNR Applications That May Take Advantage of ASSET are: (1) Contrast Enhanced MR Angiography (CE MRA) and (2) Breathhold Abdominal Imaging. Compatibility: 1.5T Signa MR Systems with Phased Array Platform, Reflex 100 and 512 MB BAM, Octane Host Computer, and Torso Phased Array Coil. 2 M1090KR Delayed Enhancement Delayed Enhancement Technique Forms a Very Vital Constituent of the Overall Myocardial Assessment Using MRI. It Can Potentially Assist in Distinguishing the Living Tissue From the Dead and This May Have Significant Relevance in Guiding the Overall Strategy of the Patient Management in Terms of Revascularization. This Technique Consists of IR Prep Gated Fast GRE and Acquires Images Whose Appearance is

Determined by the T1 Relaxation Time of the Tissue. By Using Fast Gradient Recalled Echo Segment with an Inversion Recovery Pulse, RF Pulse, Various Tissues can be Suppressed or Enhanced. The IR Prep Pulse in This Sequence is a Non-Selective Pulse Which Means It Excites

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QUOTATION

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QTY CATALOG

DESCRIPTION

PRICE

the Entire Volume Inside the Body Coil Rather than Exciting a Specific Slice. This is Useful Because the Non-Selective IR Prep Pulse Suppresses Myocardium and the Blood as It Enters the Slice Mulling Their Signal.

The Recommendations for Delay Times and Scan Planes are as Follows:

- o 5 Minutes Short Axis
- o 10 Minutes Short Axis
- o 15 Minutes Short Axis

2 S7501MR

Fluoro Triggered MRA Provides Real-Time Acquisition and Monitoring of Fast Gradient Echo (fGRE) Images Related to Abdominal and Vascular Imaging. Allows Switching From the Real-Time Monitoring Mode to Acquisition of 3DfGRE Images in Less Than 1 Second.

Benefits:

High Spatial Resolution Contrast Enhanced Abdominal/Vasccular Images can be Acquired with Real-Time Switching Enabled by This Feature.

Compatibility:

Octane Host Computer, IDrive Feature, IPG2 Hardware. Compatibile with 1.5T TwinSpeed, EchoSpeed Plus, HiSpeed Plus, SmartSpeed, EchoSpeed, HiSpeed, and Standard Systems. Also Compatible with 1.0T HiSpeed Plus, HiSpeed, SmartSpeed and Standard Systems. iDrive Pro Requires Reflex 20 or Faster AP.

The iDrive Pro Offering Includes the iDrive Pro Software and Operator Manual. iDrive Pro Enables Real Time Interactive Imaging at up to 8 Frames/Second (Gradient Platform Dependent) With a 2D FGRE/FSPGR Pulse. Interactive Geometry and Contrast Controls are Enabled Through the Intuitive Point & Click iDrive User Interface Which Makes Extensive Use of Live, On-Image Navigation Icons.

Geometry Controls Enabled With iDrive Pro Include Image Plane Location, Obliquity, Rotation, Center of FOV and FOV Size.

Contrast Controls Include the Ability to Toggle On/Off Spatial Pre-Saturation Pulses, Spectral Saturation Pulses, Flow Compensation



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QUOTATION

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QTY	CATALOG	DESCRIPTION	PRICE
		and RF Spoiling. In Addition, Application of a Non-Selective IR Pulse May Also be Applied in Real Time.	
·		Live Thumbnail Image Icons are Also for Location/Contrast Bookmarking as Well as the Three Plane Home Images. A Simple Click of Any of These Images Will Immediately Return the User to the Image Representing by the Thumbnail. A 235 Circular Image Buffer is Also Included, With the Added Bonus That any Image in the Buffer can Act as a Bookmark.	
		A Suite of Localization Tools Including Draw Line, 2 Point and 3 Point Tools, are Included to Facilitate Localization of Complex Anatomy. Once Localized, This Anatomy can be Quickly and Easily Attached to Subsequent Imaging Series Through the Use of the iRx Feature.	
		Other Interactive Abilities Include Swap Phase/ Frequency, 10 Level Undo/Redo, Built-in Time, AutoNEX and Pause.	
		A Set of Display/Review/Save Tools are Also Included with iDrive Pro.	
1	M1090LP	EchoPlus SW for Diffusion Weighted Imaging	
		This LX EchoPlus Package Introduces a Diffusion Weighted Single Shot EPI Technique That May be Used to Improve the Ability of MR to Detect Acute and Hyper Acute Stroke. The EchoPlus Package Includes the Following:	
		o Combination of Single Shot EPI or FLAIR EPI	
		o Multi-NEX Capability	
		o Isotropic Diffusion Weighting	
		o On-Line Image Processing	
		(Please Note that ADC Maps are Enabled With the FuncTool Post Processing Package That Can Run On Main Console or In the AW 3.1 or Higher Version)	
2	M1090KJ	2D Gated Fiesta Cine	
		Cine Pulse Sequence Option for Superior Blood/Myocardium Contrast in Cardiac Imaging.	
		This is a Fully Balanced Steady-State Coherent Imaging Pulse Sequence Designed to Produce High SNR Images at Very Short TRs. The Pulse Sequence Uses Fully Balanced Gradients to	



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PRICE

DESCRIPTION QTY CATALOG Rephase the Transverse Magnetization at the End of Each TR Interval. For Very Short TR Sequences, the Resulting Signal Intensity is Independent of TR and Related to T2/T1. Hence, the Pulse Sequence Accentuates the Contrast of Spins with High T2/T1 Ration Such as CSF, Water and Fat While Suppressing the Signal From Tissues with Low T2/T1 Ration Such as Muscle and Myocardium. The Applications Include Among Others, Significant Contrast Enhancement Between Myocardium and the Blood Pool. In Addition to the Enhanced Contrast Available From this Sequence, Superior Image Quality is Obtained Because the Sequence is Less Sensitive to Turbulent Blood Flow than the 2D FastCINE Sequence. Prerequisites: 1.5T, Octane, 9.0 or 8.4 SW, Greater Than or Equal to Reflex 50, IPG2, CERD or UCERD2, 125KHz BW. Not Compatible with Base (SR20), SmartSpeed, HiSpeed GRAM or EchoSpeed GRAM Gradients. Surface Coils 1 M1087NB 1.5T Open Neuro Vascular Array Coil This Coil is Specially Suited to High SNR Applications in the Neck, Head, Brain and for Vascular Imaging with Extended 48 cm S/l Coverage. o Four Channel Quadrature Phased Array Receive Only Design o Two-piece Removable Top Design Includes Multiple Coil Openings and Adjustable Mirror To Reduce Claustrophobia. o 48 cm Coverage in S/l Direction 1 M1087SP 1.5T Quadrature Phased Array CTL Spine Coil

Designed to Meet Critical Requirements for Full

o 12-Channel Quadrature Phased Array Design that Provides Excellent Signal to Noise and Uniform Coverage with 48 cm FOV per Mode and

Spine Imaging.

75 cm Total Coverage

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QTY	CATALOG	DESCRIPTION	PRICE
		o Conforms to the Natual Curvature of the Neck and Spine	
		o Removable Coil Top Provides Imaging of the Anterior Cervical Region. This Unique Split-top Design Enables the Coil to be Used for Routine Neck Imaging Applications and Eliminates the Need to Switch to a Dedicated Neck Coil, Thereby Increasing Clinical Efficiency and Ease of Use.	
	·	o The CTL Spine Coil Can Easily Accomodate the Full Range of Patient Sizes Including The Taller Patient Population.	
		o Coil has Markers to Indicate Coil Outlines Which Enables the Accurate Positioning of the Anatomy and the Coil at the Imaging Isocenter. Applications Manuals and Operation Instructions Included.	
		o Includes SNR Testing Phantoms and Formfitting Pads for Patient Comfort.	
1	M1087TB	1.5T Torso Phased Array Coil	
		Receive Only Coil for Exams of Body and Pelvis.	
		The Primary Applications are Liver, Spleen, Kidneys, Pancreas, Adrenals, Heart, Mediastinum Pulmonary and Abdominal Vasculature and Female Pelvis. The GE BodyPak Software is Recommended.	
		o Four Channel Receive Phased Array Design with Overlapping Elements	
	e .	o Sensitive Imaging Volume is 34 cm Wide and 32 cm Long	
		o Compatable with ATD-T and Endo Cavitary Imaging	
		o Compatible with ASSET Imaging Techniques	
		o Enables Surface Coil Intensity Correction for Uniform Signal Throughout the FOV	
		Includes Washable High-density Foam Housing and Also Head-end and Foot-end Pads for Patient Comfort.	
1	NW9504CM	IGC Medical Advances o 235GE-64 Multi-purpose Flex Array Coil for GE MR 1.5T Systems	

Hardware



QUOTATION

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QTY	CATALOG	DESCRIPTION	PRICE
1	M3000RE	Vector Array Processor 200 with 1GB BAM	
		GE's Fast and Scaleable Reconstruction Processor Offers Approximately 200 Images Per Second for Standard Imaging Sequences. The MR System Utilizes Mercury Array Processors for High-speed Image Reconstruction. The Array Processors Utilize a 32 Bit Floating Point Data Format and are Linked to the Host Computer Via a DataBLIZZARD High-speed Bus-to-Bus Interface Which Transmits Data at 72 MB/Sec to the Host CPU (16X Ethernet Rate) Providing Excellent Clinical Productivity.	
		1GB LX Bulk Array Memory (BAM)	
		Bulk Array Memory (BAM) Board Enhances Image Acquistion/Reconstruction Capabilities for Scaleable Vector Reconstruction Modules of Signa LX.	
		This Imparts Industry-Unique Productivity to the System Through True Simultaneity Including Reconstruction Even While Scanning is on.	
1	M3033PC	Linux PC Upgrade Commitment: Included with this Order is a Linux PC Upgrade. When the Linus PC is Commercially Available, as Determined by GEMS, GEMS will Install the Linux PC on Customer's (MR Product), at No Additional Charge to the Customer.	
		Before Order Entry, GEMS will Remove the Linux PC Commitment Catalog Number Item From this Order and Create a Separate Order for Such Catalog Number Item. However, Payment Terms Shall Remain the Same as Orginally Stated in	
	*	the Quotation and Payment for the Linux PC Commitment Catalog Number Item Shall be Included with the Payment for the Original Order. Full Payment for the Linux PC Commitment Catalog Number Item is Due at Time of Final Payment Under the Original Quotation Payment Terms.	
1	M1000NT	18 Inch Color LCD Monitor	
		18 Inch LCD High Resolution 1280 x 1024 Color Monitor. The Flat Panel Monitor Occupies Much Less Space on the Operator Table and is Significantly Lighter.	
		Provides an Excellent Contrast Ratio of 300:1	
1	M3033KK	Adaptive Phased Array 2 (APA2) for Forward Production Systems. The Adaptive Phased Array 2 Hardware Improves the Performance of the Quadrature CTL Phased Array Spine Coil by	



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QUOTATION

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QTY	CATALOG	DESCRIPTION	PRICE
		Eliminating Unwanted Signal From Anatomy Outside the Field-of-view, Improving Image Quality and Protocol Flexibility. This Option is Only Compatible with Signa 1.5T Systems with 9.0 or Newer Software. This Option is not Compatible with CV/i or NV/i Systems with 8.4 Software.	
1	M1000MN	LX English Keyboard	
1 '	M1.000MW	LX Wide Table for Color Monitor. Table not Compatible for Mobile Configurations. Do not Order for Mobiles; Table Provided by Van Manufacturer. LX Wide Table for M1000MZ.	
		Service/IIS/Training	
1	M1099MD	Clinician Training Voucher	
		Entitles an Individual to Attend One of a Variety of GE MR Sponsored Classes Offered Throughout the United States. These Classes are Taught by Leading Physicians Who Provide Cutting Edge Insight Into the Acquisition and Interpretation of MR Data. The Voucher Includes Course Tuition, Course Materials, a \$300 Airfare Allowance, on Site Breakfast and Lunch (on Class Days), and \$100 Daily Stipend for Dinner and Lodging.	
		Recommended Accessories	
1	E8804LA	TopSpins SmartSet. IV Tubing for the Hand Injection of Contrast for MRA and MRI. Increases the Reliability of Bolus Timing. Minimizes the Bolus Gap During the Switch of Gadolinium to Saline Flush. Swivel Lock to Prevent IV Separation From Angiocatheter. Two Inputs for Simultaneous Attachment of Contrast and Flush Syringes. Check Valves Automatically Switch Between Contrast and Flush. Kink Resistant, Adjustable Length, Transparent Latex-Free Tubing. 30 Units per Case	
		Hardware Options	
1	M3088TH	Main Disconnect Panel	
		Recommended for Signa TwinSpeed	
		Electronics	
1	M3088TA	Dual Loop Outdoor Chiller	
		Dual Loop Outdoor Chiller is Optimized to Lower the Operating Costs of the Site. This Unit Minimizes the Need for Additional AC in the Equipment Room. The Unit is Installed Outside the Facility and Provides Cooling to Both	

QUOTATION

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QTY	CATALOG	DESCRIPTION	PRICE
		the Magnet and the Twin Gradients Sub-systems.	
	E1000LG	Establishment of Initial Insite Broadband Virtual Private Network (VPN) Connection to a Customer Site. The Customer is Required to Have a Broadband Circuit, Firewall, and Compatible VPN Router Installed Prior to Product Delivery. The VPN Router Must be Compatible with Cisco, Nortel, or Checkpoint. Price Includes Labor to Install Broadband VPN Connectivity to the Customer Site, the Connection of a Single Product to This Connection, and Proactive/ Reactive Monitoring and Support of the Connection. For Additional Modality Connecting to Existing Broadband VPN, the Customer Must Purchase This Item for Each Additional Connection.	
		This Equipment is Eligible for 97% Uptime Protection During the Warranty Period at no Additional Charge, but Only if You Maintain a Broadband Connection for the Equipment During the Warranty Period at Your Expense. Please Refer to the GEMS Consolidated Product Warranty Attached to This Quotation for Details.	
		Price Includes 6% Sales Tax	
1	S7501RT	Reflex 50 to Reflex 100 Upgrade with 512 MB BAM Note: This Array Processor is Only Compatible with Octane Computer Systems and Requires ASPII or Newer Software.	
		Reflex 100 with 512 MB BAM	
		Reflex 100 Reconstruction Processor, GE's Fastest Optional Scaleable Reconstruction Processor. Offers Approximately 100 Images per Second for Standard Imaging Sequences, for Higher Throughput Sites and More Demanding Image Series.	
		LX BAM Memory	
		Bulk Array Memory (BAM) Board Enhances Images Acquisition/Reconstruction Capabilities for Scaleable ReFlex Reconstruction Modules of Signa LX. Total BAM for Signa LX is 512 MB.	
		MR Training	
2	W0100MR	MR Onsite System Training	
		o One Four (4) Day Onsite Visit to Coincide With Start-Up.	
		o One Three (3) Day Onsite Follow-Up Visit	



QUOTATION

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QTY	CATALOG	DESCRIPTION	PRICE
		(6-8 Weeks Post System Start-Up).	
		TOTAL NET EQUIPMENT SELLING PRICE	2,084,884.01
		80% Due on delivery of major components and prior to Installation	1,667,907.21
		Balance due on completion of Installation and/or availability for first use	416,976.80
		Unless explicitly stated otherwise, and listed as individual items, charges for Federal Excise, state and local taxes, and rigging charges are not included in this quotation price.	
		OPTIONS	
1	NW8801GU	Medrad o 3006972 MR Music System	6,773.00
		Installation is optionally available through Medrad.	
1	M1087SD	1.5T Shoulder Phased Array Coil	17,000.00
	·	The 1.5T Shoulder Array Coil Set Provides Uniform Image Quality Throughout the Shoulder Region with Superior Fat Saturation Imaging. It Includes Two Coils.	,
		o Large 20 cm Coil	
		o A Smaller 16.5 cm Coil	
		Provides Excellent Imaging of Large and Small Patients with Deep Penetration into the Labrum.	
		Studies Routinely Use 12 cm Field-of-View, or Less. The Coil Housing Slides Laterally to the Edge of Magnet Bore to Maximize Patient Space. The Coil Locks to the Base Tray, Eliminating the Coil as a Source of Motion in Patient Studies.	
		The Coil is Very Comfortable for the Patient and Set-up Takes Only Seconds to Provide Unparalleled Shoulder Studies.	
		Includes Signal-to-Noise Test Scanning Phantom for Image Quality Assurance Procedures.	

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QTY	CATALOG	DESCRIPTION	PRICE
1	M1085AC	Signa Extremity Surface Coil	13,000.00
		o One Seven Inch I.D. by Eight and one-half Inch Long (7" I.D. x 8.5" long) Cylindrical, Open Face Surface Coil Designed to Permit High Quality Imaging of Extremities	
1	E8804G	Medrad Spectris MRI Injection System with Pedestal Head Mount Offers Precisely Timed Contrast Administration, Tight Bolus Delivery, and Consistent Repeatable Injection Parameters Through the Use of Unique Touch Screen Programming. KVO Feature Maintains Vein Patency and Patient Control. System Includes:	39,270.00
		o Display Control Unit	
		o Head Control Unit	
		o Injector Head and Stand	
		o Battery Charger	
		o Battery Pack (Quantity of Two)	
		o HCU Ground Cable	
		o SOT 200 75 Foot Optical Transmitter and Receiver	
		o SOT 200 25 Foot Optical Transmitter and Receiver	
		o 65 ml MRI Disposable Kit	
		o MCU to DCU Cable, 5 Foot	
	*	o Two Optical Transmitter Receivers 100 Foot	
		o Lighted Start Switch, 20 Foot	
		o Two Power Cords, North American and European	
		o Includes One Year Warranty, Installation, Applications Training, Operations, and Installation ManualsH	
		All progress payments, including the delivery portion, are due to GE Medical Systems prior to final system calibration. GE Medical Systems reserves the right to delay final system calibration until all such payments are received.	
		If we incur any collection expenses for past due payments, we reserve the right to charge you for such	



GE Medical Systems

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QTY CATALOG

DESCRIPTION

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expenses, up to the amount of 10% of the past due payments, and you agree to reimburse us for such expenses.

We will accept order changes up to 5 weeks prior to the scheduled arrival date (the expected equipment delivery date) or within 3 business days after we receive your order. We reserve the right to deny late change requests. If we accept late requests, delivery may be delayed.

ANY CONTRACT RESULTING FROM THIS QUOTATION WILL BE BASED SOLELY AND EXCLUSIVELY ON GENERAL ELECTRIC COMPANY'S STANDARD CONDITIONS OF QUOTATION AND OTHER TERMS AND CONDITIONS CONTAINED IN OR REFERENCED BY THIS QUOTATION.

ITEMS ASSOCIATED WITH THE ORDERED PRODUCTS AND PROVIDED UNDER THIS QUOTATION WITHOUT SEPARATELY IDENTIFIED CHARGE CONSTITUTE "DISCOUNTS OR OTHER REDUCTIONS IN PRICE" UNDER APPLICABLE FEDERAL LAW (42 U.S.C. 1320a-7b).

IT IS THE CUSTOMER'S RESPONSIBILITY TO DISCLOSE SUCH "DISCOUNTS OR OTHER REDUCTIONS IN PRICE" AS MAY BE REQUIRED UNDER ANY STATE OR FEDERAL PROGRAM WHICH PROVIDES COST OR CHARGE BASED REIMBURSEMENTS TO THE CUSTOMER FOR THE PRODUCTS OR SERVICES PROVIDED UNDER THIS QUOTATION.

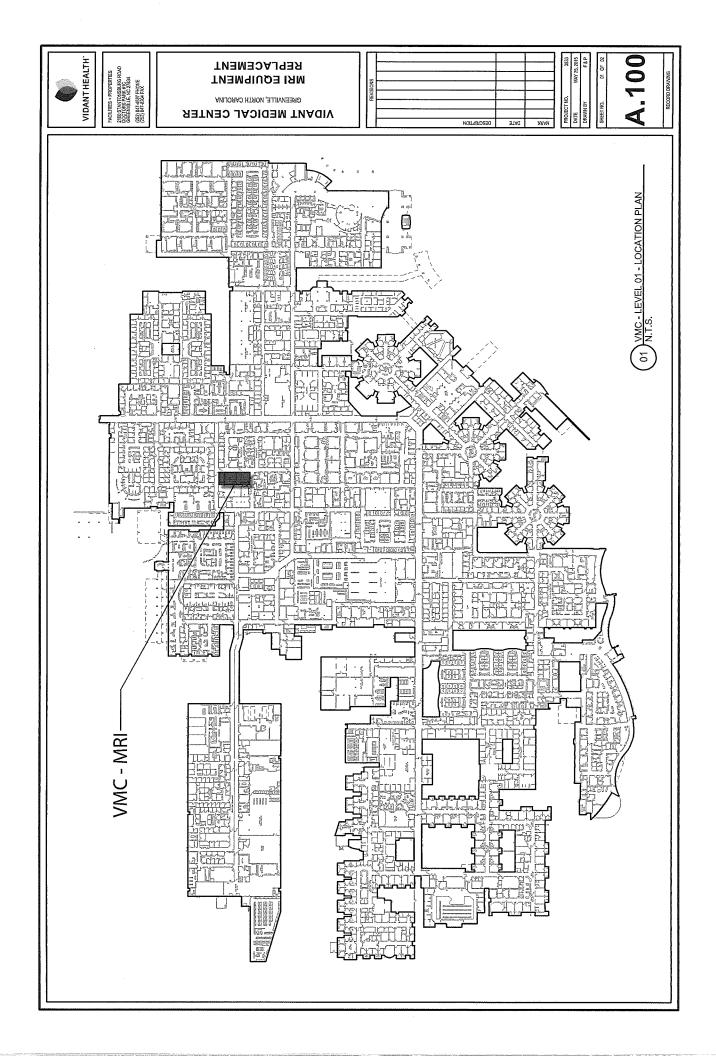
FOR "NL" OR "NW" PREFIXED CATALOG NUMBERED PRODUCTS, OTHER THAN "NL521", "NL528", "NL531" OR "NL538", GE DOES NOT PROVIDE PRE-INSTALLATION OR EQUIPMENT PLANNING SERVICES, INSTALLATION, WARRANTY, SERVICE, PARTS OR APPLICATION SUPPORT.

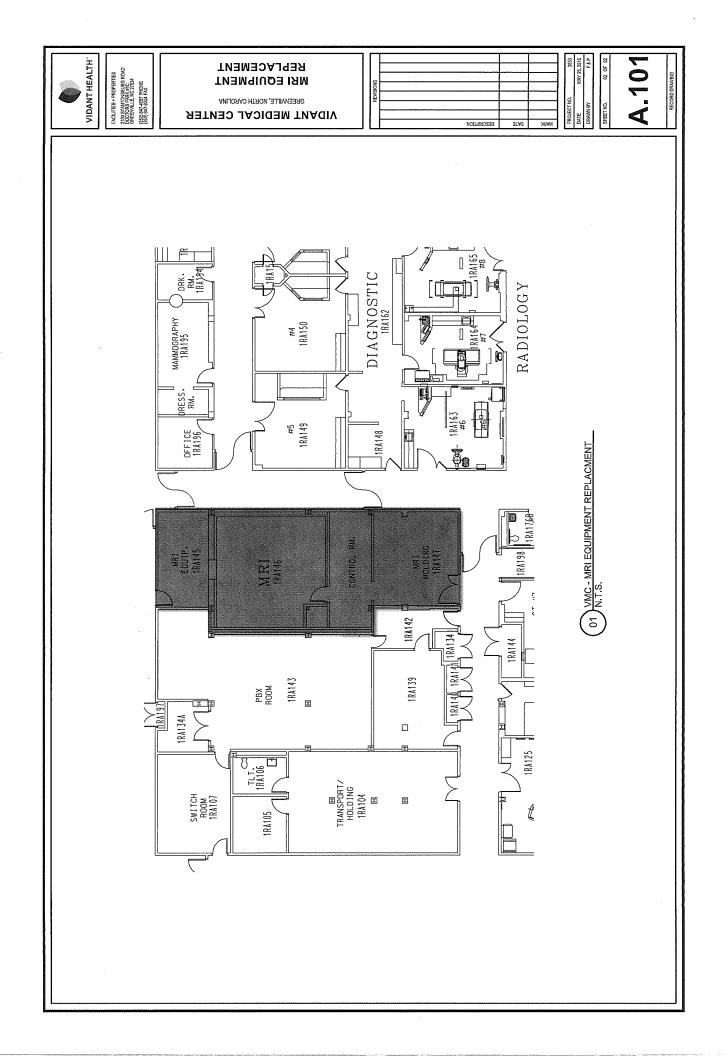
"FOR 'E' PREFIXED CATALOG NUMBERED PRODUCTS, THE SINGLE LETTER (A THROUGH H) SHOWN AT THE END OF THE QUOTATION DESCRIPTION INDICATES THE SERVICE CODE FOR THE PRODUCT. AN EXPLANATION OF THIS CODE IS FOUND ON THE REVERSE SIDE OF THE ACCESSORIES WARRANTY INCLUDED WITH THIS QUOTATION."

PRICES SHOWN IN THIS QUOTATION DO NOT INCLUDE TAXES. WHERE APPLICABLE, THEY WILL BE ADDED AND SHOWN SEPARATELY ON INVOICES AT TIME OF BILLING.

IF YOU ARE TAX EXEMPT AND THIS IS YOUR FIRST ORDER WITH GE MEDICAL SYSTEMS, PLEASE REMIT A COPY OF YOUR TAX EXEMPTION CERTIFICATE WITH YOUR ORDER.

Appendix C Current and Proposed Drawings





Appendix D Capital Cost Sheet

CAPITAL COST SUMMARY

Site Costs		
(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 \$ 0	-
(7) Sub-Total Site Costs		- \$ 0
Construction Contract		
(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	\$ 132,880	
(9) Cost of Labor	\$ 132,880 \$ 199,320	-
(10) Other (DHSR Fee; Testing)	\$ 7,740	-
(11) Sub-Total Construction Contract	Ψ .1,140	\$ 339,940
Miscellaneous Project Costs		Ψ 000,040
(12) Building Purchase	\$ 0	
(13) Fixed Equipment Purchase/Lease	\$ 1,793,721	-
(14) Movable Equipment Purchase/Lease	\$ 1,793,721	
(15) Furniture	\$ 0	-
(16) Landscaping	\$ 0	-
(17) Consultant Fees	Ψ	-
,	\$ 53,907	
Architect and Engineering Fees	\$ 53,907	-
Legal Fees		-
Market Analysis		-
CON Preparation Sub-Total Consultant Fees	¢ 52.007	-
	\$ 53,907	-
(18) Financing Costs (e.g. Bond, Loan, etc.)	\$ 0 \$ 0	-
(19) Interest During Construction	\$ 0	-
(20) Other (Specify) (21) Sub-Total Miscellaneous		\$ 1947.600
(21) Sub-10tal Miscellatieous		\$ 1,847,628
(22) Total Project Capital Cost (Sum A-C above)		\$ 2,187,568

Appendix E Existing Equipment Removal Letter



GE Healthcare PO Box 414 Milwaukee, WI 53187

September 8, 2015

Sandra Sackrison Administrative Director Vidant Medical Center 2100 Stantonsburg Road Greenville. NC 27834

RE: GE Signa HD 1.5T MRI

Dear Sandra,

Thank you for allowing General Electric Healthcare (GEHC) the opportunity to earn your business. Vidant Medical Center 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 GE 1.5T MRI Scanner as part of your upcoming GE Optima MR450w 32ch GEM 1.5T MRI purchase and estimate the de-installation and removal will be completed at no additional charge to Vidant Medical Center. Vidant Medical Center will be responsible for the cost of any scan room construction/renovation, clearing the rig path, and opening the scan room access panel. Additionally, Vidant Medical Center represents and warrants to Buyer that the title to the GE 1.5T MRI shall be free and clear of all liens, claims, and encumbrances of any kind whatsoever and Vidant Health agrees to indemnify and defend GEHC, its successors, and assignees from any costs or damages incurred as a result of any breach of the warranty herein contained. 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,

F. Scott Ramsey

7 Sent Rames

MR Business Manager, NC General Electric Healthcare

919-621-1657

scott.ramsey@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.

Magnetic resonance imaging (MRI) is a test that uses a magnetic field and pulses of radio wave energy to make pictures of organs and structures inside the body. In many cases, MRI gives different information about structures in the body than can be seen with an X-ray, ultrasound, or computed tomography (CT) scan. MRI also may show problems that cannot be seen with other imaging methods. MRI is used to find problems such as tumors, bleeding, injury, blood vessel diseases, or infection.

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 replacement unit. Brochures of the existing equipment no longer exist. See the original quote in Appendix B for the specifications of the existing equipment.

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. See the original quote in Appendix B for the original purchase of the existing equipment.

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 MRI scans on patients that need them. The unit is outdated, at the end of its useful life, and needs to be replaced.