NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
MANDY COHEN, MD, MPH • Secretary
MARK PAYNE • Director, Division of Health Service Regulation

VIA EMAIL ONLY

August 10, 2021

Denise M. Gunter
Denise.gunter@nelsonmullins.com

No Review

Record #:	**3633**
Date of Request:	August 5, 2021
Facility Name:	Carolina Imaging Center, Inc. of Fayetteville
FID #:	980753
Business Name:	Carolina Imaging, LLC of Fayetteville
Business #:	376
Project Description:	Temporarily replace a fixed MRI scanner with a mobile MRI scanner followed by permanent replacement with a new fixed MRI scanner
County:	Cumberland

Dear Ms. Gunter:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that the above referenced project is exempt from certificate of need review in accordance with G.S. 131E-184(a)(7). Therefore, you may proceed to acquire without a certificate of need the GE 1.5 23x mobile MRI (MQ26) scanner to temporarily replace the GE Signa HDi 1.5T fixed MRI scanner until the new replacement equipment previously approved in Exemption Record # 3600 is installed. This determination is based on your representations that the existing fixed unit will be sold or otherwise disposed of and both the temporary mobile MRI scanner and the existing fixed unit will not be used again in the State without first obtaining a certificate of need if one is required.

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

Sincerely,

Tanya M. Saporito
Project Analyst

Micheala Mitchell
Chief, Certificate of Need

cc: Construction Section, DHSR

NELSON MULLINS

NELSON MULLINS RILEY & SCARBOROUGH LLP
ATTORNEYS AND COUNSELORS AT LAW

The Knollwood, 380 Knollwood Street Suite 530
Winston-Salem, North Carolina 27103
T: 336.774.3300 F: 336.774.3299
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Denise M. Gunter
T: (336) 774-3322 F: (336) 774-3372
denise.gunter@nelsonmullins.com

August 5, 2021

Via Email

Micheala Mitchell, Chief
Healthcare Planning and Certificate of Need Section
North Carolina Department of Health and Human Services
Division of Health Service Regulation
809 Ruggles Drive
Raleigh, North Carolina 27603

Re: Temporary Use of Mobile MRI Scanner
Cumberland County
Health Service Area V
FID # 980753
Business # 376

Dear Ms. Mitchell:

On behalf of Carolina Imaging Center, LLC of Fayetteville ("Carolina Imaging"), I am writing to provide the CON Section with prior written notice of Carolina Imaging's intent to temporarily utilize a mobile magnetic resonance imaging ("MRI") scanner while a fixed MRI scanner is being replaced.

On July 23, 2021, the CON Section issued its written exemption authorizing Carolina Imaging to replace its existing fixed MRI scanner approved in Project I.D. No. M-7924-07. *See* **Exhibit A**.

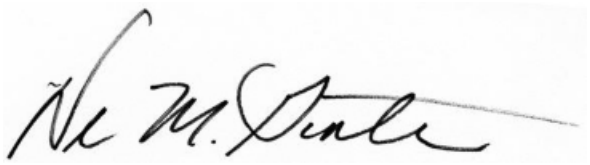
Carolina Imaging intends to move forward with the replacement of the fixed MRI scanner. As part of that process, it is anticipated that there will be an interruption of service as the existing scanner is removed and the new scanner is brought online. To avoid disrupting patient diagnosis and treatment, Carolina Imaging is arranging a services agreement with a mobile MRI scanner in the MedQuest inventory that is currently in storage (the "Temporary Scanner"). The Temporary Scanner is known internally as MQ26. MQ26 is a GE 1.5 23x MRI scanner. Carolina Imaging presently estimates that the Temporary

Scanner will be used at Carolina Imaging from approximately the end of October 2021 to January 2022. When the replacement is completed, Carolina Imaging will cease using the Temporary Scanner, put it in storage, and begin using the replacement scanner. The Temporary Scanner will be used to provide the same type of MRI scans that the existing scanner provides. No new health services will be provided. There will be no increase in patient charges as a result of allowing the Temporary Scanner to be used.

Accordingly, Carolina Imaging respectfully requests written confirmation from the CON Section that the proposed use of the Temporary Scanner during the replacement process does not require a CON.

Thank you for your time and consideration. Please let me know if you have any questions or need any other information.

Sincerely,



Denise M. Gunter

Enclosure

Exhibit A

NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor
MANDY COHEN, MD, MPH • Secretary
MARK PAYNE • Director, Division of Health Service Regulation

VIA EMAIL ONLY

July 23, 2021

Lisa Griffin
llgriffin@novanthealth.org

Exempt from Review – Replacement Equipment

Record #:	**3600**
Date of Request:	July 15, 2021
Facility Name:	Carolina Imaging Center, Inc. of Fayetteville
FID #:	980753
Business Name:	Carolina Imaging Center, LLC of Fayetteville
Business #:	376
Project Description:	Replace existing MRI scanner
County:	Cumberland

Dear Ms. Griffin:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that the above referenced project is exempt from certificate of need review in accordance with G.S. 131E-184(a)(7). Therefore, you may proceed to acquire without a certificate of need the GE Healthcare Pioneer 3T fixed MRI scanner to replace the GE Healthcare Signa HDi 1.5T fixed MRI scanner, serial #R6774. This determination is based on your representations that the existing unit will be sold or otherwise disposed of and will not be used again in the State without first obtaining a certificate of need if one is required.

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

Sincerely,

Tanya M. Saporito
Project Analyst

Lisa Pittman
Assistant Chief, Certificate of Need

cc: Construction Section, DHSR

July 15, 2021

NOVANT HEALTH

Via Email

2085 Frontis Plaza Boulevard
Winston-Salem, NC 27103

Tanya Saporito, Project Analyst, Certificate of Need
N.C. Department of Health Service Regulation
809 Ruggles Drive
Raleigh, North Carolina 27603

Re: Carolina Imaging of Fayetteville, LLC
Replacement of MRI Scanner
Fayetteville Carolina (FID # 980753; Cumberland County)

Dear Ms. Saparito:

Carolina Imaging of Fayetteville, LLC ("Carolina Imaging at Fayetteville") intends to replace an existing MRI scanner located at its location at 3628 Cape Fear Center Drive, Fayetteville, North Carolina. This location is a wholly-owned, not-for-profit subsidiary of Novant Health, Inc. The existing MRI scanner acquired in 2009 (by approved Project ID #M-7924-01) is in need of upgrading and will be replaced by a more advanced and functional 3 Tesla scanner. See **Attachment A** for the Equipment Quote including the removal and trade-in of the existing unit indicated on page 16.

The existing MRI scanner is still in use, as reported on the Registration and Inventory Form excerpted in **Attachment B**. The total capital cost for the proposed replacement equipment project is estimated to be $1,970,348. See **Attachment C** for the signed Projected Capital Cost Form.

The proposed project meets the definition of "replacement equipment" found in G.S. 131E-176(22a) and 10A N.C.A.C 14C.0303 for the following reasons:

(1) Carolina Imaging at Fayetteville will replace the existing MRI scanner with the proposed equipment that is functionally similar and will be used for the same diagnostic purposes, although it possesses expanded capabilities due to technological improvements.
(2) The proposed equipment will not be used to provide a new health service.
(3) The acquisition of the proposed equipment will not result in more than a 10% increase in patient charges or per procedure operating expenses within the first twelve months after the replacement equipment is acquired.
(4) Carolina Imaging at Fayetteville seeks to replace comparable medical equipment currently in use at project costs less than $2 million.
(5) The existing equipment was not purchased second-hand nor was the existing equipment leased.
(6) The existing equipment will be removed from North Carolina.

In support of our request, please find attached:

Attachment A – Vendor Equipment Quote
Attachment B – Excerpt of 2021 Registration and Inventory Form
Attachment C – Projected Capital Costs Summary
Attachment D – Equipment Comparison chart

Carolina Imaging at Fayetteville's acquisition of the replacement equipment does not require a certificate of need because none of the definitions of "new institutional health services" set forth in N.C.G.S. Section 131E-176(16) apply to the proposed project. As outlined above, the total cost for the project is $1,970,348. The proposed capital cost includes equipment, as well as studies, surveys, designs, plans, working drawings, specifications, construction installation and other activities essential to making the equipment operational.

Based on the information provided, please confirm that Carolina Imaging at Fayetteville's replacement equipment exemption request does not constitute a new institutional health service and is exempt from certificate of need review.

If you need additional information, please do not hesitate to contact me.

Sincerely,

DocuSigned by:
Lisa Griffin
297DCB23ABC445B...

Lisa Griffin
Manager, Operational Planning
Novant Health, Inc.

Attachments

ATTACHMENT A

GE Healthcare

July 15, 2021
Quote Number: **2008116733.3**
Customer ID: **1-25GN9D**
Agreement Expiration Date: **10/13/2021**

Carolina Imaging
3628 Cape Center Dr
Fayetteville, NC 28304-4406

This Agreement (as defined below) is by and between the Customer and the GE Healthcare business ("GE Healthcare"), each as identified below for the sale and purchase of the Products and/or Services identified in this Quotation, together with any applicable schedules referred to herein ("Quotation"). "Agreement" is this Quotation and either: (i) the Governing Agreement identified below; or (ii) if no Governing Agreement is identified, the GE Healthcare Terms and Conditions and Warranties that apply to the Products and/or Services identified in this Quotation. In the event of conflict, the Quotation supersedes.

GE Healthcare can withdraw this Quotation at any time before Customer: (i) signs and returns this Quotation or (ii) provides evidence of Quotation acceptance satisfactory to GE Healthcare ("Quotation Acceptance"). On Quotation Acceptance, this Agreement is the complete and final agreement of the parties relating to the Products and/or Services identified in this Quotation. There is no reliance on any terms other than those expressly stated or incorporated by reference in this Agreement and, except as permitted in this Agreement, no attempt to modify will be binding unless agreed to in writing by the parties. Modifications may result in additional fees and cannot be made without GE Healthcare's prior written consent.

Handwritten or electronic modifications on this Agreement (except an indication of the form of payment, Customer purchase order number and signatures on the signature blocks below) are void.

Governing Agreement:	GEHC Standard Terms Apply
Terms of Delivery	FOB Destination
Billing Terms	100% billing at Ship Completion (Fulfillment) / Delivery
Payment Terms	Due On Receipt-30 Days
Total Quote Net Selling Price	$1,590,955.00
Sales and Use Tax Exemption	No Certificate on File

IMPORTANT CUSTOMER ACTIONS:

Please select your planned source of funds. Source of funds is assumed to be cash unless you choose another option. Once equipment has been shipped, source of funds changes cannot be allowed.

___ Cash

___ GE HFS Loan ___ GE HFS Lease

___ Other Financing Loan ___ Other Financing Lease Provide Finance Company Name _____

The parties have caused this Agreement to be executed by their authorized representative as of the last signature date below.

Carolina Imaging

Signature: _____

Print Name: _____

Title: _____

Date: _____

_____
Purchase Order Number, if applicable

GE Precision Healthcare LLC, a GE Healthcare business

Signature: Herb Klann

Title: Sr Sales Manager Imaging

Date: July 15, 2021

GE Healthcare

July 15, 2021
Quote Number: **2008116733.3**
Customer ID: **1-25GN9D**
Agreement Expiration Date: **10/13/2021**

To Accept This Quotation

Please sign and return this quotation together with your Purchase Order to:

Name: Herb Klann
Email herb.klann@ge.com
Phone: 724-504-8778
Fax:

Name: Scott Ramsey
Email: scott.ramsey@ge.com
Phone: 919-621-1657
Fax: 919-869-1618

Payment Instructions

Please **remit** payment for invoices associated with this quotation to:

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

FEIN: 83-0849145

Carolina Imaging

Addresses:

Bill To:	CAROLINA IMAGING	CAROLINA IMAGING, ACCOUNTS PAYABLE 3628 CAPE CENTER DR FAYETTEVILLE, NC, 28304-4406
Ship To:	CAROLINA IMAGING	3628 CAPE CENTER DR FAYETTEVILLE, NC, 28304-4406

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 a 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
  Your correct SHIP TO and BILL TO site name and address
  The correct Total Price as indicated above

Upon submission of a purchase order in response to this quotation, GE Healthcare requests the following to evidence agreement to contract terms: Signature page on quote filled out with signature and P.O. number **** OR**** Verbiage on the purchase order must state one of the following:

(i)Per the terms of Quotation # _____, (ii) Per the terms of GPO #_____; (iii) Per the terms of MPA# _____: or (iv) Per the terms of SAA # _____.

Include applicable quote/agreement number with the reference on the purchase order. In addition, Source of Funds (choice of Cash/Third Party Load or GE HFS Lease Loan or Third Party Lease through _____), must be indicated, which may be done on the Quote Signature Page (for signed quotes), or the Purchase Order (where quotes are not signed) or via a separate written source of funds statement (if provided by GE Healthcare)."

Catalog Item Details

Line	Qty.	Catalog	
	1.00	**S7529PN**	**SIGNA™ PIONEER 3T 33CH 29.1 MR SYSTEM**

The SIGNA™ Pioneer 3T 70cm wide-bore magnetic resonance system was designed to enable you to deliver both clinical excellence and operational efficiency while addressing the total cost of ownership for 3T wide-bore technology. With SIGNA™ Pioneer simplify and accelerate the scanning process from set-up to acquisition to post-processing for your technical staff, while providing access to an extensive range of clinical imaging and advanced visualization capability for your clinicians.

The SIGNA™ Pioneer system catalog comprises the RF-architecture electronics, core RF coil suite, gradient electronics, computing platform and MR29.1 operating/imaging software:

- TDI RF-Receive Technology, RF Coil Suite
- RF-Transmit and Multi-Drive Technology
- UHE with IGC Gradient and ART Quiet Acoustic Reduction Technology
- Computing Platform and DICOM Conformance
- SIGNA™Works AIR™ IQ Edition Express Exam Workflow and Comfort Plus Patient Table
- SIGNA™Works AIR™ IQ Edition Acceleration, Motion Correct and Tissue Suppression Technology
- SIGNA™ Works AIR™ IQ Edition Clinical Applications Toolkits
- SIGNA™ Works AIR™ IQ Edition READYView Advanced Visualization

TECHNOLOGY FOUNDATION

The RF-architecture, gradient and computing technology infrastructure on SIGNA™ Pioneer is designed to deliver the signal-to-noise, dynamic range, spatial resolution, temporal resolution and computational power needed to enable demanding clinical applications.

Total Digital Imaging (TDI) and RF Coil Suite

SIGNA™ Pioneer features the Total Digital Imaging RF-architecture with a 33-channel configuration. The TDI RF-architecture uses a Direct Digital Interface (DDI) to convert the signal from each coil element to a digitized signal (there is no mixing of signal from multiple elements to the same digitizer) to deliver high signal and low noise with extended dynamic range or gray-scale capability. In addition, the TDI RF-architecture enables the capability to simultaneously acquire the MR signal from the integrated body coil and the high-density surface coil using Digital Surround Technology. The superior SNR and sensitivity of the high-density surface coil is then combined with the superior homogeneity and deeper signal penetration of the integrated body coil to deliver enhanced spine and body imaging.

The SIGNA™ Pioneer coil suite is designed to enhance patient comfort and image quality while simplifying workflow. The coil suite includes:

- (1) Integrated 4-port drive T/R Body Coil
- (1) TDI Posterior Array
- (1) TDI Head-Neck Unit

The integrated TDI Posterior Array is designed to simplify workflow and enhance efficiency for the technologist. The TDI PA coil is symmetrically positioned within the Comfort Plus patient table can be used in conjunction with the TDI HNU coil (included) and the Anterior Array (sold separately) with coil connection ports at both ends of the table. As a result, SIGNA™ Pioneer enables feet-first or head-first patient positioning and streamlined whole-body imaging. In addition, the TDI PA is designed to use different element geometries to optimize imaging for the cervical-to-thoracic junction, thoracic-lumbar spine and body anatomies with the system automatically selecting the appropriate subset of coil elements based on the prescribed FOV. The TDI PA and is invisible to additional surface coils when they are placed directly on top of the surface, and does not need to be removed as a result.

- Elements: 32 with dedicated spine configuration
- Length: 120.5 cm; Width: 48.6 cm
- S/I coverage: 113 cm feet-first or head-first
- Parallel imaging in all three scan planes

The TDI Head and Neck Unit comprises the baseplate and the anatomically optimized Neuro-vascular array and the Open-face array. The upper end of the HNU can be elevated to enhance patient comfort and access. The TDI HNU is designed to be used in conjunction

with the TDI Posterior Array (included) and the Anterior Array (sold separately).

- Elements: up to 41 combined with TDI PA and GEM Flex S/M (sold separately)
- Length: 53 cm; Width: 35 cm
- Height with NV Array: 35 cm
- Height with Open Array: 25.7 cm
- S/I coverage: up to 32 cm with the NV
- Parallel imaging in all three scan planes

RF-Transmit and Multi-Drive Technology

SIGNA™ Pioneer features multi-port, multi-drive RF-transmit technology to address RF uniformity and signal homogeneity at 3T. The RF-transmit architecture consists of a liquid-cooled 30 kW solid-state RF power amplifier with multiple output channels and a 4-port drive whole-body transmit coil. As a result, SIGNA™ Pioneer can optimize the phase and amplitude of each RF amplifier output channel that is applied to the 4-port drive whole-body RF transmit coil to enhance RF uniformity and signal homogeneity regardless of patient shape, size, and/or body habitus.

- T/R body coil: fully integrated, 4-port, 16 rung quadrature design
- Digital RF pulse control: 2 amplitude modulators and 2 frequency/phase modulators

UHE with IGC Gradient Technology and Quiet Technology

SIGNA™ Pioneer introduces the Ultra High Efficiency (UHE) gradient system with Intelligent Gradient Control technology (IGC). The IGC gradient driver employs a digital control system that utilizes predictive models of the electrical and thermal characteristics of the gradient coil to maximize performance. As a result, SIGNA™ Pioneer delivers exceptional minimum TR and TE capability while reducing power consumption with an eco-friendly design. The gradient coil and the RF body coil are integrated into a single module which is water and air-cooled for optimum duty-cycle performance and patient comfort. In addition, the gradients are non-resonant and actively shielded to minimize eddy currents to deliver high fidelity, accuracy and reproducibility over a large FOV.

- Peak amplitude per axis: 36 mT/m
- Up to 150 T/m/s instantaneous peak slew rate per axis
- Maximum FOV: 50 cm x 50 cm x 48 cm
- Duty Cycle: 100%

Designed to deliver an enhanced patient experience, SIGNA™ Pioneer features ART Quiet Acoustic Reduction Technology that significantly addresses both vibrational noise and airborne sound. ART quiet acoustic reduction uses 5 levels of isolation, dampening and gradient optimization technology to mitigate vibration and mute sound.

- Gradient & RF coil isolation – isolates the resonance module from the magnet
- Vibro-acoustic isolation –isolates the magnet from the building
- Mass-damped acoustic barriers – further mutes sound
- Gradient waveform optimization – user selectable

Computing Platform and DICOM Conformance

SIGNA™ Pioneer utilizes a parallel, multi-processor design to enable simultaneous scanning, reconstruction, filming, post-processing, archiving and networking. Both the host computer and reconstruction systems use the Scientific Linux operating system. The host computer PC utilizes a single tower configuration and includes an LDC monitor and keyboard assembly with an integrated 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.

- Host PC Platform: Intel Xeon W-2123 CPU
- Memory: 64 GB
- Hard Disk Storage: 1024 GB SSD
- Media Drives: CD/DVD

SIGNA™ Pioneer enhances data reconstruction with access to the Orchestra platform and Smart AIR™ Recon. The Orchestra computing toolbox enables the integration of advanced reconstruction elements to support demanding, data intense, applications as well as access to the reconstruction algorithms. AIR™ Recon uses a smart reconstruction algorithm that reduces background noise and artifacts enhancing image quality without the need for longer scan times.

- Reconstruction Engine: Gen7 Dual Intel Xeon Gold 5118 with Performance Level

- Memory: >=128 GB
- Hard Disk Storage: 960 GB SSD
- 2D FFT/second (256 x 256 Full FOV): 63,000 2DFFT/second
- Orchestra reconstruction toolbox
- Smart Algorithm AIR™ Recon

SIGNA™ Pioneer 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 details.

SIGNA™WORKS MR29.0 AIR™ IQ EDITION WORKFLOW

The SIGNA™Works MR29.0 AIR™ IQ Edition workflow tools comprise the patient table, in-room display, modality worklist, protocol libraries, workflow manager, auto-functions, inline viewing and inline processing. Together these tools are designed to change the way you work by simplifying and accelerating the scanning process from set-up to acquisition to post-processing. With SIGNA™Works, workflow can begin before the patient enters the magnet room and exams can be completed with a few mouse clicks delivering quality and consistency for all patients and from all technologists. At the same time, AIR™ Workflow maintains the flexibility needed to rapidly adapt and optimize exams for specific patient situations including the ability to pause and resume the exam without the need to start over.

With AIR™ Workflow, scan set-up starts with Modality Worklist, an automated method to obtain patient, exam and protocol information from a DICOM work-list server. For sites with full DICOM connectivity, once a patient has been selected from the Modality Worklist, the In-Room Operator Console will automatically highlight the relevant exam details. The Modality Worklist enables complete control of the MR protocol prescription, but also reduces work by allowing the MR protocol to be selected and linked to the patient record in advance of the patient's arrival.

Protocol Tools enable exam automation while also giving the user complete control of protocols for prescription, saving, searching, and sharing. Protocols are organized into two libraries: GE Optimized (preloaded protocols) and Site Authored (customized and saved). Protocols can be saved based on patient demographics, anatomy, scan type, or identification number for rapid search and selection, and commonly used protocols can be flagged as favorites for quick selection from the Modality Worklist.

In addition to pre-programmed protocols, ProtoCopy enables a complete exam protocol to be shared with the click of a mouse. GE protocols provided with the system include Protocol Notes designed to guide the user through the procedure. For special applications, Protocol Notes also include video guides with step-by-step video-based demonstration and instruction. Protocol Notes can be edited by the user to reflect protocol modifications to aid communication among users.

In the scan room, the Comfort Plus patient table with the embedded TDI PA can be lowered to facilitate patient loading/unloading, typically without a stepstool, with the choice of feet-first or head-first positioning. In addition, the cradle width has been increased by ~30% from previous generations to comfortably accommodate a broader range of patients.

- Maximum patient weight for scanning: 550 LBS
- Maximum patient weight for lift: 550 LBS
- Automated vertical and longitudinal power drive
- Fast longitudinal speed: 25 cm/sec
- Slow longitudinal speed: 1.9 cm/sec
- AIR Touch™ IntelliTouch and laser land-marking

Throughout patient set-up, the IRD In-Room Display guides the technologist to the next workflow step and provides real-time feedback via integrated touch-screen monitors and keypads – one on each site of the magnet. The IRD also enables the technologist to update patient data, confirm coil connection status and check respiratory waveforms without leaving the magnet room.

- Display of patient name, ID, study description
- Display and entry of patient weight
- Display and entry of patient orientation and patient position
- Cardiac waveform display and ECG/EKG lead confirmation with gating control
- Respiratory waveform display
- Display connected coils and coil status
- Display of table location and scan time remaining
- Control in-bore ventilation and lighting
- Screen saver
- AutoStart to initiate scanning of the first series of the selected protocol

With the patient positioned, IntelliTouch and AIR Touch™ together simplify coil activation to one touch and one click. AIR Touch™

automatically determines coil element locations based on the IntelliTouch landmark and intelligently generates the coil configuration with elements activated to optimize image quality for coverage, uniformity and parallel imaging acceleration factor.

At the console, the AIR™ WorkFlow Manager implements the selected protocol. The Workflow Manager controls location prescription, acquisition, processing, visualization and networking, and can fully automate these steps, if requested by the user. Once the target anatomy has been prescribed, the Linking feature can be used to translate appropriate parameters to all subsequent series that have been linked, eliminating the need for further action by the user.

Auto Functions when selected can automatically initiate the localizer, coil selection, series-to-series scanning, multi-station scanning, prescription of scan plans for brain exams, as well as delivered instructions to the patient. Pause and Resume allows the user to pause a scan in progress (even in automated mode), to respond to a patient need, and then resume mid-scan (without starting the scan over) helping to address rescans. For breath-hold scanning, Auto Protocol Optimization provides alternative choices for spatial resolution and breath-hold time based on the original protocol. As a result, technologists are liberated from troublesome parameter adjustments to optimize scan time and image quality by selecting among protocol parameters automatically calculated by the MR system.

Inline Processing automatically completes post-processing steps for the user after the images have been reconstructed and saved into the database. For certain tasks, such as vascular segmentation, the user must accept the results, or complete additional steps prior to saving the images to the database. These automated processing steps can be saved to the (scan) protocol to ensure consistent output and workflow:

- Diffusion weighted series: automatic compute and save
- Diffusion tensor series: automatic compute and save
- eDWI: automatic compute and save
- Image filtering: automatic compute and save
- Maximum/Minimum Intensity Projection: automatic compute and save
- Pasting: automatic compute and save
- Reformat to orthogonal plane: automatic compute and save
- T2 map for cartilage: automatic compute and save
- 3D Volume Viewer: automatic load
- Image Fusion: automatic load
- Interactive Vascular Imaging: automatic load
- FiberTrak: automatic load
- Spectroscopy: automatic load

SIGNA™WORKS AIR™ IQ EDITION CLINICAL APPLICATIONS TOOLKITS

The SIGNA™Works AIR IQ Edition is designed to change the way you work by simplifying and accelerating the scanning process from set-up to acquisition to post-processing while delivering access to a broad range of clinical imaging capability. The AIR™ IQ Edition of SIGNA™Works comprises the operating software, pulse sequence families, clinical applications and visualization toolkits as well as acceleration, motion correction and tissue suppression technology.

The acceleration, motion correction and tissue suppression tools in the SIGNA™Works AIR™ IQ Edition are designed to address overall workflow, rescans and scan time as well as the impact of challenging patients, challenging anatomy and challenging physiology.

Acceleration Technology

Reduce scan set-up and acquisition time with a suite of techniques highlighted by AIR™ Workflow, parallel imaging and partial k-space techniques. Many techniques can be used in combination for additive effects.

- AIR Touch™ intelligent activation reduces set-up time by reducing coil selection and optimization to one finger touch and one mouse click. AIR™ Touch then activates coil elements based on the anatomy, FOV and ARC parallel imaging factor.
- AIR™ Recon is a smart reconstruction algorithm that reduces background noise and artifacts enabling enhanced image quality without the need for longer scan times. AIR™ Recon is compatible with a broad range of imaging sequences including: the FSE fast spin echo, 3D Cube fast spin echo, SPGR/FSPGR, GRE/FGRE, PROPELLER MB, eDWI, FOCUS DWI, FIESTA, Black Blood, Time Course, MDE, SSMDE and StarMap.
- ARC parallel imaging reduces scan time using an auto-calibrating (data-driven) technique. ARC selectively acquires data using an adaptive algorithm. As a result, ARC enables smaller FOV prescription with less sensitivity to motion and prevents coil calibration artifacts.
- ASSET parallel imaging reduces scan time using an array spatial sensitivity (image driven) technique. ASSET takes advantage of the data produced by the multiple coil elements to reduce the total data needed.
- Flexible No Phase Wrap reduces scan time by reducing the number of increments acquired based on a flexible user-selectable factor.
- Fraction NEX reduces scan time by reducing the number of data averages.

Motion Correction Technology

Enable free-breathing body exams and address the effects of motion with patient-adaptive technologies that proactively detect and correct for motion without hardware dependencies or the need for user intervention.

• Auto Body Navigators deliver real-time, respiratory motion compensated imaging for a broad range of sequences, including T1w dynamic contrast-enhanced imaging. Auto Body Navigators use a software-based tracking pulse that is automatically placed for the user and allows on-the-fly adjustment to adapt to challenging patient circumstances, again without the need for hardware or sensors.
• PROPELLER MB combines radial acquisition and motion correction post-processing to mitigate the effects of motion without the need to position the patient over a sensor. PROPELLER MB can be used to generate T1, T2, PD, T1 FLAIR, and T2 FLAIR contrasts and is compatible with FatSat, ASPIR, STIR T1 and Auto Body Navigators to enable usage for a broad range of exams.

Tissue Suppression Technology

Modify the contribution of fat or water signal with multiple tissue suppression techniques.

• FatSat uses a frequency selective pulse to target and suppress the signal from fat.
• STIR uses an inversion pulse to null either the signal from fat or water based on the timing of the pulse.
• SPECIAL essentially combines FatSat and STIR by using a frequency selective inversion pulse that targets and suppresses the signal from fat.
• ASPIR enhances fat suppression by using a using a spectrally selective (instead of a single frequency) inversion pulse to null the signal from fat.
• IDEAL is a 3-point Dixon technique that separates the signal from fat and water based on phase shift and enables the generation of water-only, fat-only, in-phase and out-of-phase images.
• Flex is 2-point Dixon techniques that separates the signal from fat and water based on phase shift and enables the generation of water-only, fat-only, in-phase and out-of-phase images.

The SIGNA™Works AIR™ IQ Edition clinical imaging tools are organized and optimized to address six clinical work areas: NeuroWorks, OrthoWorks, BodyWorks, OncoWorks, CVWorks and PaedWorks.

NeuroWorks comprises pre-programmed protocols, clinical applications and visualization tools designed for the challenges of brain and brachial plexus imaging. Resulting capability starts with simplified prescription and protocol set-up. Imaging capability extends to sensor-free motion correction, advanced volumetric imaging, enhanced diffusion, susceptibility assessment and selective tissue suppression techniques. Post-processing capability augments the portfolio with 3D multi-planar reformat, volume segmentation/rendering, diffusion and fibertrak assessment and dynamic contrast-enhanced assessment.

• READYBrain auto-align for automated brain exam prescription
• PROPELLER MB motion robust radial-FSE with T1, PD, T2, T2 FLAIR, T1 FLAIR with STIR and ASPIR
• PROPELLER DW Duo FSE-based diffusion with susceptibility reduction
• Flex 2-point Dixon fat-water separation for 2D FSE and 3D Cube
• 3D Cube 2.0 FSE-based imaging with T1, T2, T1 FLAIR, T2 FLAIR and STIR
• 3D Cube Dual Inversion Recovery for gray or while matter nulling
• 3D COSMIC modified steady state imaging
• 2D/3D MERGE T2* multi-echo fast gradient echo imaging
• 3D BRAVO IR prepared fast SPGR imaging with concentric k-space filling
• 3D MP-RAGE IR prepared fast SPGR imaging with sequential k-space filling
• 3D FIESTA and 3D FIESTA-C fast steady state imaging
• eDWI enhanced diffusion with Multi-B value and SmartNEX
• DTI diffusion tensor imaging
• FiberTrak post-processing for diffusion tensor
• 3D SWAN 2.0 GRE-based multi-echo susceptibility imaging
• PROBE PRESS single voxel spectroscopy
• BrainStat GVF and AIF parametric maps
• READYView and BrainView post-processing

OrthoWorks delivers pre-programmed protocols, clinical applications and visualization tools designed for the challenges of joint, long bone and spine imaging. Resulting capability starts with fast-spin echo techniques as the foundation for articular cartilage, ligaments, menisci and sub-chondral bone imaging. Imaging capability also extends to sensor-free motion correction, advanced volumetric imaging, selective tissue suppression, cartilage assessment and spectral imaging for MR-Conditional implants. Post-processing capability augments the portfolio with 3D multi-planar reformat, volume segmentation/rendering and T2 cartilage mapping.

- FSE and frFSE fast spin echo imaging suites with dynamic phase correction
- FatSat, STIR, SPECIAL, ASPIR, Spectral Spatial fat-suppression tools
- MARS High Bandwidth distortion reduction for FSE
- MAVRIC SL FSE-based spectral imaging for MR-Conditional implants with T1, PD, T2 and STIR
- PROPELLER MB motion robust radial FSE with T1, PD, T2 and Fat Suppression (STIR and ASPIR)
- 3D Cube 2.0 FSE-based imaging with T1, T2, and STIR
- Flex 2-point Dixon fat-water separation for 2D FSE and 3D Cube
- 3D COSMIC modified steady state imaging
- 2D/3D MERGE T2* multi-echo fast gradient echo imaging
- CartiGram T2 cartilage mapping
- READYView post-processing

BodyWorks delivers pre-programmed protocols, clinical applications and visualization tools designed for the challenges of imaging the upper abdomen, liver, male pelvis and female pelvis. Resulting capability starts with sensor-free motion correction and navigators that enable the ability to conduct free-breathing exams with a broad range of contrast weighting capability. Imaging capability further extends to snap-shot imaging, volumetric MRCP imaging, dynamic volumetric imaging, enhanced diffusion, iron deposition and selective tissue suppression techniques. Post-processing capability augments the portfolio with 3D multi-planar reformat and high-definition maximum/minimum intensity pixel projection.

- Auto Navigators diaphragm tracker for free-breathing scanning
- PROPELLER MB motion robust radial FSE with T1 and Fat Suppression (STIR and ASPIR)
- 3D Cube FSE-based imaging with T1, T2, and STIR
- eDWI enhanced diffusion with Multi-B value and SmartNEX
- 3D Dual Echo gradient echo in/out phase imaging
- 3D LAVA and Turbo LAVA with Turbo ARC and SPECIAL for dynamic or single-phase imaging
- 3D LAVA Flex GRE 2-point Dixon fat-water separation for dynamic or single-phase imaging
- IDEAL FSE 3-point Dixon fat-water separation
- Flex GRE 2-point Dixon fat-water separation
- 3D MRCP frFSE imaging
- 2D Fat Sat FIESTA fast steady state imaging
- Enhanced SSFSE Snapshot multi-slice imaging with SmartR
- Whole-Body multi-station localizer and pasting
- Whole-Body multi-station FSE-IR, 3D SPGR and DWI imaging
- StarMap iron assessment for liver and heart (acquisition)
- Multiphase DynaPlan
- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- READYView and BodyView post-processing

OncoWorks delivers pre-programmed protocols, multi-station, contrast-timing, clinical applications and visualization tools designed for the challenges of imaging throughout the brain, spine and body. Resulting capability starts with tools that simplify and streamline the steps associated with multi-station acquisition and the timing of contrast delivery. Imaging capability includes sensor-free motion correction and navigators that enable the ability to conduct free-breathing exams with a broad range of contrast weighting capability. Capability further extends to snap-shot imaging, dynamic volumetric imaging, enhanced diffusion and selective tissue suppression techniques. Post-processing capability augments the portfolio with 3D multi-planar reformat, volume segmentation/rendering, diffusion assessment and auto-contour.

- Auto Navigators diaphragm tracker for free-breathing scanning
- PROPELLER MB motion robust radial-FSE with T1, PD, T2, T2 FLAIR, T1 FLAIR with STIR and ASPIR
- PROPELLER DW Duo FSE-based diffusion imaging with susceptibility reduction
- Flex 2-point Dixon fat-water separation for 2D FSE and Cube
- 3D Cube 2.0 FSE-based imaging with T1, T2, T1 FLAIR, T2 FLAIR and STIR
- 3D Cube Dual Inversion Recovery for gray or while matter nulling
- 3D BRAVO IR prepared fast SPGR imaging with concentric k-space filling
- 3D MP-RAGE IR prepared fast SPGR imaging with sequential k-space filling
- Enhanced SSFSE Snapshot multi-slice imaging with SmartR
- Whole-Body multi-station localizer and pasting
- Whole-Body multi-station FSE-IR, 3D SPGR and DWI imaging
- eDWI enhanced diffusion with Multi-B value and SmartNEX
- 3D LAVA and TurboLAVA with Turbo ARC and SPECIAL
- 3D LAVA Flex GRE 2-point Dixon fat-water separation for dynamic or single-phase imaging
- Multiphase DynaPlan

- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- READYView, BrainView and BodyView post-processing

CVWorks delivers pre-programmed protocols, multi-station, contrast-timing, clinical applications and visualization tools designed for the challenges of imaging vascular structures and the heart. Resulting capability starts with tools that simplify and streamline the steps associated with multi-station acquisition and the timing of contrast delivery. Imaging capability includes sensor-free navigators that enable the ability to conduct free-breathing exams. For MRA, imaging capability includes 2D and 3D time-of-flight and phase contrast MRA, non-contrast MRA and dynamic MRA techniques. For the heart, imaging capability includes techniques for morphology, function, tissue characterization and iron deposition. Post-processing capability augments the portfolio with interactive vascular imaging for MRA and high-definition maximum/minimum pixel projection.

- Auto Navigators diaphragm tracker for free-breathing scanning
- iDrive for free breathing cardiac planning
- 2D FIESTA Cine gated steady-state, multi-phase imaging
- 3D FS FIESTA steady-state imaging with Fat Sat
- 2D/3D IR Prep gated fast gradient echo imaging
- Black Blood SSFSE single-shot FSE-based imaging
- Cine IR fast-gradient echo cardiac cine imaging with IR-prep pulse
- 2D/PS MDE phase sensitive tissue characterization
- StarMap iron assessment for liver and heart (acquisition)
- 2D/3D Time-Of-Flight & 2D Gated Time-of-Flight
- 2D/3D Phase Contrast & Phase Contrast Cine
- TRICKS dynamic contrast enhanced 3D MRA
- Inhance 2.0 non-contrast MRA suite
- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- 3D QuickStep automated multi-station imaging
- READYView post-processing

PaedWorks delivers pre-programmed protocols, clinical applications and visualization tools designed for the challenges of imaging pediatric patients. Resulting capability starts with sensor-free motion correction and navigators that enable the ability to conduct free-breathing exams with a broad range of contrast weighting. Imaging capability further extends to advanced volumetric imaging, dynamic volumetric imaging, enhanced diffusion, susceptibility assessment, selective tissue suppression techniques and spectral imaging for MR-Conditional implants. Post-processing capability augments the portfolio with 3D multi-planar reformat, volume segmentation/rendering and diffusion assessment.

- PROPELLER MB motion robust radial-FSE with T1, PD, T2, T2 FLAIR, T1 FLAIR with STIR and ASPIR
- 3D Cube 2.0 FSE-based imaging with T1, T2, T1 FLAIR, T2 FLAIR and STIR
- 3D Cube Dual Inversion Recovery for gray or while matter nulling
- 3D COSMIC modified steady state imaging
- 2D/3D MERGE T2* multi-echo fast gradient echo imaging
- 3D BRAVO IR prepared fast SPGR imaging with concentric k-space filling
- 3D MP-RAGE IR prepared fast SPGR imaging with sequential k-space filling
- 3D FIESTA and 3D FIESTA-C fast steady state imaging
- eDWI enhanced diffusion with Multi-B value and SmartNEX
- DTI diffusion tensor imaging
- FiberTrak post-processing for diffusion tensor
- SWAN 2.0 3D GRE-based multi-echo susceptibility imaging
- PROBE PRESS single voxel spectroscopy
- MAVRIC SL FSE-based spectral imaging for MR-Conditional implants
- Auto Navigators diaphragm tracker free-breathing scanning
- 3D LAVA and Turbo LAVA with Turbo ARC and SPECIAL for dynamic or single-phase imaging
- 3D LAVA Flex GRE 2-point Dixon fat-water separation for dynamic or single-phase imaging
- Enhanced SSFSE Snapshot multi-slice imaging with SmartR
- Black Blood SSFSE single-shot FSE-based imaging
- Cine IR fast-gradient echo cardiac cine imaging with IR-prep pulse
- 2D PS/MDE phase sensitive tissue characterization
- StarMap iron assessment for liver and heart (acquisition)
- BrainStat GVF and AIF parametric maps
- READYView and BrainView post-processing

Advanced Visualization and Post-Processing

READYView is a SIGNA™ Works AIR™ IQ Edition advanced visualization tool designed to simplify the quantitative analyses of multiple data sets. READYView automatically selects the most relevant post-processing protocol for the user and provides guided workflow and general assistance for the processing algorithms. In addition, the user can customize workflows with adjustable layouts, personalized parameter settings and custom review steps. Key capabilities of READYView include the ability to analyze, export and save:

- Time series
- Diffusion weighted series
- Diffusion tensor series
- Variable echo series
- Blood oxygen level dependent (BOLD) series fMRI processing
- Spectroscopy data (single voxel and 2D or 3D CSI)
- MR Touch (MR elastography) series

Line	Qty.	Catalog	
	1.00	**M7008LT**	**SIGNA Pioneer 3.0T Magnet**

The SIGNA Pioneer is equipped with GE's most-advanced 3.0T magnet design, a spacious 70cm patient bore with bright inner-bore lighting, Total Digital Imaging RF architecture and MultiDrive RF transmit technology delivering performance, productivity and exceptional image quality.

GE's Wide-Bore Magnet Design: With GE's active shielding technology and space-age composite design, the lightweight 3.0T magnet minimizes weight while preserving homogeneity and minimizing fringe fields. The result is a 3.0T magnet that does not compromise performance yet can be installed almost anywhere. The magnet's high-homogeneity delivers excellent fat-saturation away from iso-center and ensures image quality over a full 50 cm field-of-view. Coupled with its zero-boil off technology and remote magnet monitoring technology, the SIGNA Pioneer 3.0T magnet is designed to provide years of worry-free, reliable, low-cost operation.

The SIGNA Pioneer introduces pioneering RF technology called TDI which stands for Total Digital Imaging and delivers imaging with greater clarity and increased SNR by up to 25%. TDI is built on three fundamental components:

- GE's Direct Digital Interface (DDI) employs an independent analog-to-digital converter to digitize inputs from each of the RF channels. Every input is captured and every signal digitized, literally redefining the concept of an RF channel. Not only does DDI technology improve SNR of our images, but it also works with legacy GE coils for unmatched flexibility.
- Digital Surround Technology (DST) combines the digital signal from every coil element with the signal from the integrated RF body coil. The superior SNR and sensitivity of the high-density surface coils are combined with the superior homogeneity and deeper signal penetration of the integrated RF Body Coil resulting in richer, higher quality spine and body images.
- Digital Micro Switching (DMS) technology represents a revolutionary advance in RF coil design by replacing analog blocking circuits with intelligent Micro Electro-Mechanical Switches (MEMS) by enabling coil design that supports ultrafast coil switching times for further expansion of zero TE imaging capabilities.

Dual In-Room Displays (IRD): By consolidating all controls into one place, the Dual In-Room Displays (IDR) provides real-time feedback to the operator to improve exam room efficiency with an in-room display monitor available at either side of the magnet, the technologist always has all the control he needs at his fingertips, irrespective of which side he is operating from. Further touch-screen capability makes the controls even more intuitive and easy to use. The display provides real-time interaction with the scanner and the host computer. The user has direct control or selection of the following:

- Display of patient name, ID, study description
- Display and entry of patient weight
- Display and entry of patient orientation and patient position
- Cardiac waveform display and ECG/EKG lead confirmation with gating control: trigger select, invert and reset
- Respiratory waveform display
- IntelliTouch technology landmarking
- AutoStart – initiate the scanner to automatically acquire, process, and network images
- Display connected coils and coil status
- Display of table location and scan time remaining
- Screen saver
- Control multiple levels of in-bore ventilation and lighting

Ultra High Efficiency (UHE) Gradient System: The SIGNA Pioneer gradient coil is 2x more efficient than previous generation of products (i.e. the pioneer gradient coil requires half the amount of current required by previous designs to generate the same gradient field). This eco-friendly design enables the gradients to deliver superior performance while significantly reducing power consumption. The gradient is non-resonant and actively shielded to minimize eddy currents and mechanical forces within the system. The gradient coil and the RF body coil are integrated into a single module, which is water and air-cooled for optimum duty-cycle performance and patient comfort. Further, the SIGNA Pioneer gradient driver includes Intelligent Gradient Control (IGC) technology which employs a digital control system that utilizes predictive models of the electrical and thermal characteristics of the gradient coil to maximize the performance of the gradient system to deliver exceptional clinical performance. Utilizing a unique acoustic barrier material, acoustic noise levels are reduced for enhanced patient comfort without compromising imaging performance.

SIGNA Pioneer MultiDrive RF Whole-Body RF Coil: The SIGNA Pioneer system with GE's MultiDrive RF transmit technology as a standard system feature. This system features a high efficiency 4-port drive RF body coil and independent RF amplitude and phase control to improve RF signal homogeneity across the field of view. The system features a fully automated optimization to adjust the RF settings for each patient to deliver optimal image quality regardless of patient size or shape.

Line	Qty.	Catalog	
	1.00	**S7525NZ**	**Preinstallation Collector**

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. This collector contains the integrated cooling cabinet and the patient comfort and cryo hoses.

Line	Qty.	Catalog	
	1.00	**M7000VA**	**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.

Line	Qty.	Catalog	
	1.00	**M70012LR**	**Pioneer Scan Room Collector - Long**

The Long Scan Room Collector contains a collection of cables such as gradient cables and other materials necessary for system interconnections. The long configuration is designed for room configurations that require a long length based on distance between system components.

Line	Qty.	Catalog	
	1.00	**M70032IL**	**Pioneer Scan and Equipment Room Kit - Long**

The Scan and Equipment Room Kit includes the Pioneer System Cable Collector, Gradient Hoses, LCD Monitor, and Desktop Collector with mouse and pad.

Line	Qty.	Catalog	
	1.00	**M1000MW**	**Operator Console Table**

The Operator Console Table is designed specifically for the color LCD monitor and keyboard.

Line	Qty.	Catalog	
	1.00	**M70012RP**	**English Language Kit**

English Language Kit

Line	Qty.	Catalog	
	1.00	**R33002AC**	**Standard Service License**

The Standard Service License provides access to service tools used to perform basic level service on the Equipment and is included at no charge for the warranty period.

Line	Qty.	Catalog	
	1.00	**M7100AF**	**MUSE**

MUSE is a diffusion weighted and diffusion tensor technique that allows higher spatial resolution with reduced EPI-based distortions. MUSE implements a segmented readout approach along the phase encoding direction and utilizes a dedicated image reconstruction algorithm to mitigate shot-to-shot motion-induced phase errors inherent to multi-shot diffusion. The technique is compatible with navigators, cardiac and respiratory gating, as well as in-plane parallel imaging acceleration.

Line	Qty.	Catalog	
	1.00	**M7100DA**	**PROGRES**

PROGRES is an automated distortion, motion and eddy current correction technique, based on an integrated Reversed Polarity Gradient (RPG) acquisition. Using a rigid affine registration, the technique outputs images with reduced susceptibility artifacts at no significant impact in overall scan time.

Extended DTI capabilities allow the selection and customization of up to 300 diffusion-encoding directions, resulting in more accurate diffusion tensor estimations.

Line	Qty.	Catalog	
	1.00	**M7001SE**	**FOCUS**

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 at both 1.5T and 3.0T field strengths.

Line	Qty.	Catalog	
	1.00	**M7001KB**	**3.0T TDI Anterior Array**

The Anterior Array facilitates chest, abdomen, pelvis, and cardiac imaging. The AA is lightweight, thin and flexible, and pre-formed to conform to the patient's size and shape. With 54 cm of S/I coverage, the AA permits upper abdomen and pelvis imaging without repositioning the coil.

- Elements: up to 36 combined with PA
- Length: 55.6 cm; Width: 67.4 cm
- 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

Line	Qty.	Catalog	
	1.00	**M7000SK**	**3.0T Flex Suite, Premium - P Connector (SM, MD, LG)**

The 3.0T Premium Flex Suite is a versatile set of high density 16-channel receive coils designed to give high quality images in a wide range of applications. The high degree of flexibility was achieved by removing all non-essential electronics to an external interface assembly, ensuring reduced weight on the patient and better conformance to the anatomy. The high degree of flexibility is particularly advantageous when imaging patients that do not fit the constraints of rigid coils, improving patient and technologist experience, and enabling most exams to be completed with the same level of image quality expected from dedicated coils.

This extended set includes all three sizes of coils, Small, Medium, and Large, and a knee stabilization fixture that is designed for compatibility with the flat GEM table. They cover a broad range of muscular skeletal applications, including hand, wrist, elbow, shoulder, hip (unilateral and bilateral), knee, ankle, and foot. In addition, the coils' versatility has been shown in a range of general purpose applications that include head, neck, and spine exams. It is not compatible with the MR750 and MR750w systems configured with the standard curved table top.

Includes:
- 3.0T Flex Coils - Small, Medium, and Large Arrays.
- 3.0T Flex Interface Module 16-channel Fixed, P-Connector.
- Flex Knee Stabilization fixture for flat table.
- Flex GP Strap and Interface Module Cover.
- Flex Cable Take-up Pad and General Purpose Stabilization Pad.

Line	Qty.	Catalog	
	1.00	**M7005BE**	**Flex Array Positioner**

The Flex Array Positioner is a multipurpose support for a broad range of exams including foot, ankle, forefoot, knee, and head. A dedicated forefoot attachment allows the flex array elements to be wrapped tightly around the foot, yielding improved image quality. A repositionable support pad in the foot and ankle attachment allows for selection of a 90 degree position, or a relaxed position of the ankle. The pads and straps included with the stabilizer facilitate rapid setup and allow for flexibility in how the anatomy is secured.

Line	Qty.	Catalog	
	1.00	**E8823NA**	**MRI Audio 1505 Complete system (for SIGNA Premier, Discovery™ MR750/750w, Optima™ MR450/450w, SIGNA™ PET/MR, SIGNA Architect/Artist/Voyager/Pioneer, SIGNA HDxt, and SIGNA Creator/Explorer hardware v25.3 and Pioneer hardware v26.1)**

MRI Audio 1505 Complete music system for MRI systems is designed for comfort and allows the patient to listen to music while being scanned in an MRI. The technologist is in full control of the system headphones, microphone, sound source and volume controls. Standard 3.5 mm plug for music source allows any compatible music player, tablet or phone. In-ear headphones work with any head coil. Package includes:

- Digital amplifier
- iPad Mini
- iPad Mini mount with lock
- 3G transducer
- In-ear headphones, 29dB noise reduction
- Over-ear headphones, 29dB noise reduction
- Disposable ear tips (300 pairs)
- Technologist's speakers
- 6 ft RCA 3.5 mm cable
- Auto-voice/MIC adapter

Line	Qty.	Catalog	
	1.00	**E8914DL**	**Dimplex MR Heat Exchanger 36kW - Extreme Cold Ambient Temp, with 1 year warranty and 2 PMs**

GE Healthcare has partnered with the Glen Dimplex Group to offer chillers designed to meet the needs of your MR System.

This chiller is highly reliable and is verified to perform with 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

- Chiller is engineered for extreme cold temperatures down to negative 40 degrees Fahrenheit
- Designed to provide stable fully dedicated cooling for your MR system's needs
- Water/glycol outdoor-air-cooled chiller to support your highest exam volumes
and your full range of diagnostic procedures
- Installation support from the vendor includes: 1 start up, 2 preventative maintenance visits (during warranty), and 12 months of parts and labor warranty
- Installation support includes: support through GE's Project Manager of Install, GE's
Design Center, remote technical support from the Glen Dimplex company
- Comprehensive and quality service rapidly delivered through our CARES service solution
- 70 gallons of water-glycol pre-mixture (50/50%)
- Remote display panel provides the ability to monitor the system's operation from the control room. When plugged into a LAN connection, system can be remotely monitored and diagnosed for proactive maintenance.
- Highly recommended that Vibration Isolation Spring Kit (E8914DP) be added for systems that
will be rooftop mounted
- Environmental friendly and non-ozone harming refrigerant R407C

SPECIFICATIONS

- Net Cooling Capacity: 36 kW at 60Hz
- Coolant Outlet Temperature: 50 F (10 C)
- Max Coolant Pressure : 2.75 Bar
- Refrigerant: R407C
- Coolant: 50% water and 50% glycol with inhibitors
- Ambient Temp Range: -40 to 122 F (-40 to 50 C)
- Tank Capacity: 70 gallons (265 L)
- Supply Voltage: 460v/3 phase /60 Hz
- Overall Size (L x W x H) 111 in x 31.5 in x 76.25 in
- Operational weight 2550 lb (1157 kg)

COMPATIBILITY:

- GE Signa Pioneer 3.0T MR system and GE Signa Voyager 1.5T MR system

NOTES:

- Chiller is non-returnable and non-refundable.

Line	Qty.	Catalog	
	1.00	**E8802MC**	**MR Signa Wide Security Straps**

Wide security strap set - includes one strap with Velcro and one strap with plastic buckle; 14 in. wide. For use with GE Signa MR systems.

Line	Qty.	Catalog	
	1.00	**E8802MD**	**MR Signa Narrow Security Straps**

Narrow security strap set - includes one strap with Velcro and one plastic buckle; 6 in. wide. For use with GE Signa MR systems.

Line	Qty.	Catalog	
	1.00	**E9200AB**	**MR Fast Start Package**

MR Fast Start Package includes:
• 4 E8801BA Disposable Earplugs
• 1 E8807AB Signa Log Books
• 1 E8819RG Conmed Electrodes
• 1 E8802MC Wide Security Straps
• 1 E8802MD Narrow Security Straps
• 1 E8801MR Head Coil Set
• 2 E8819A MR Warning Sign - Large
• 10 E8819B MR Warning Sign - Small
• 1 E8804EG MR Safety DVD

Line	Qty.	Catalog	
	1.00	**W0303MR**	**TIP MR Software Upgrade Training**

This training program is designed for customers purchasing an Advanced Software upgrade to a GEHC MR system. GEHC will work with the designated Customer contact to agree upon a reasonable training schedule for a pre-defined group of core technologists that will leverage blended content delivery and may include a combination of onsite days and virtual offerings, to include TiP Virtual Assist, the GEHC Answerline and available on-demand courses ("Virtual Inclusions"). This blended curriculum with multiple delivery platforms promotes learner retention and allows for an efficient and effective skill development.

This program may contain:
• Onsite training (generally 6 days)
• Virtual Inclusions may include:
• Remote instructor-led training: Instructor leads a remote training session one-on-one or in a group, typically for 1 hour
• Answerline Support-Access to GEHC experts for clinical, non-emergency applications assistance via phone or by using the iLinq button on the imaging console
• Tip Virtual Assist-Direct interactive access to a GEHC expert for enhanced support.
• On Demand courses-On healthcare learning system. Self-paced courses and webinars (CE and non-CE).

Training will be delivered at a mutually agreed upon time between the customer and GE Healthcare (excluding GE Healthcare holidays

and weekends), are subject to availability and generally will not exceed 8 days. This training program has a term of twelve (12) months commencing on Acceptance, where all onsite training must be scheduled and completed within twelve (12) months of Acceptance and all Virtual Inclusions also expire at the end of such twelve (12) month period. Additional onsite days may be available for purchase separately.
All GEHC "Training" terms and conditions apply. Given the unique nature of this program, if this program is purchased as part of a purchase under a Governing Agreement, including any Master Purchase Agreement, Group Purchasing Organization Agreement, or Strategic Alliance Agreement, this program shall take precedence over any conflicting training deliverables set forth therein.

Line	Qty.	Catalog	
	1.00	**Y0000MR**	**LX/EXCITE/MR430s End of Service Life Discount Promotion**

Customer loyalty discount for replacement of LX/EXCITE/MR430s scanners approaching end of service life.

Total Quote Subtotal: **$1,590,955.00**

Qty.	Credits and Adjustments	
1.00	**1.5T SIGNA HDi Trade-in**	**$0.00**

Total Quote Net Selling Price: ***$1,590,955.00***

If applicable, for more information on this devices' operating system, please visit GE Healthcare's product security portal at: https://securityupdate.gehealthcare.com/en/products

Trade-in Addendum to GE Healthcare Quotation

This Trade-In Addendum ("Addendum"), effective on July 15, 2021, between the GE Healthcare business identified on the Quotation and **Carolina Imaging** ("Customer"), is made a part of Quotation # **2008116733.3** ^ dated July 15, 2021 ("Quotation") and modifies it as follows:

A. Customer: (i) certifies that it has full legal title to the equipment and/or mobile vehicle ("mobile vehicles" are defined as any systems requiring a vehicle title) listed in Section E ("Trade-In Equipment"), free and clear of all liens and encumbrances; (ii) conveys title and, if applicable, registration and license documents to GE Healthcare effective on the date of removal or receipt of the Trade-In Equipment (mobile vehicles will not be removed from Customer site until GE Healthcare has received a clean title signed over to GE Healthcare); and (iii) affirms that the Trade-In Equipment has never been used on or to provide care to animals. If GE Healthcare removes the Trade-In Equipment, it will do so at its expense at a mutually agreed time. Trade-In Equipment shall be removed no later than thirty days following installation of Customer's new system, unless explicitly otherwise agreed to by the parties in writing.

Mobile vehicles must include the VIN# on this trade-in addendum: VIN# [insert Vin #]. Mobile vehicles must have a valid DOT sticker and be road worthy at the time GE Healthcare is to take possession of them in order for GE Healthcare to accept a mobile vehicle on trade-in. Any and all logos or hospital affiliation stickers must be removed (outside and inside) by Customer and Customer shall clean the mobile vehicle of all debris and medical supplies prior to removal of the mobile vehicle by GE Healthcare.

B. Customer is responsible for: (i) providing timely, unrestricted access to the Trade-In Equipment in a manner that affords GE Healthcare, or third-party purchaser of the Equipment through GE Healthcare, the ability to complete Equipment inspection and testing, and the ability to complete an operating system back-up prior to de-installation within the timeframe required by GE Healthcare or said third-party purchaser, failure of which to provide may result in termination of this Trade-in Addendum and related credits and/or payments; (ii) ensuring that the Trade-In Equipment and the site where it is located are clean and free of bodily fluids; (iii) informing GE Healthcare of site-related safety risks; (iv) properly managing, transporting and disposing of hazardous materials located on site in accordance with applicable legal requirements; (v) rigging, construction, demolition or facility reconditioning expenses, unless expressly stated otherwise in the Quotation; and (vi) risk of loss and damage to the Trade-In Equipment until safety risks are remediated and the Trade-In Equipment is removed or returned.

C. Prior to removal or return to GE Healthcare, Customer must: (i) remove all Protected Health Information as such term is defined in 45 C.F.R. § 160.103 ("PHI") from the Trade-In Equipment; and (ii) indemnify GE Healthcare for any loss resulting from PHI not removed. GE Healthcare has no obligation in connection with PHI not properly removed.

D. GE Healthcare may in its sole discretion reduce the trade-in amount or decline to purchase the Trade-In Equipment and adjust the total purchase price of the Quotation accordingly if: (i) the terms of this Addendum are not met; (ii) Customer fails to provide access to the Trade-In Equipment as required herein; or (ii) the Trade-In Equipment is missing components or is inoperable and/or non-functioning when removed or returned – Customer is required to confirm for GE Healthcare the operability of the Trade-In Equipment prior to the deinstallation of the Equipment. All other terms and conditions of the Quotation remain in full force and effect.

E. Trade-In Equipment:

Trade-In Equipment Mfr.	Model & Description	Quantity	System ID*	Trade-In Amount ($)
GENERAL ELECTRIC	1.5T SIGNA HDi Trade-in	1.00	910483CIMR	$ 0.00

This Addendum is executed when: (i) signed by the parties below; (ii) Customer receives this Addendum and signs the Quotation that references the Trade-In Equipment; or (iii) Customer receives this Addendum and issues a purchase order identifying either the terms of the Quotation (which includes a reference to the Trade-In Equipment) or the Governing Agreement identified on the Quotation as governing the order (PO# _____)†.

Carolina Imaging

Signature: _____

Print Name: _____

Title: _____

Date: _____

GE Healthcare

Signature: _____

Print Name: _____

Title: _____

Date: _____

ATTACHMENT B

Section 2: Equipment and Procedures Information

Reporting Period: ☑ 10/01/2019 – 9/30/2020 ☐ Other time period: _____

Do not make extra copies of this page if the entity has multiple MRIs in the same county. Submit a complete, separate R&I form for each scanner.

DHSR Planning Use Only	
Manufacturer / Tesla	GE / **1.5T**
Model Number	Signa HD
Open or closed (including open bore) scanner	☐ Open ☑ Closed
Serial or I.D. number	R6774
Date of acquisition	February 2009
Purchase price (if purchased)	$1,250,000
Certificate of Need Project ID (or grandfathered)	M-7924-07 ☐ Grandfathered
Certificate holder, as listed on Certificate of Need	Carolina Imaging of Fayetteville
If this equipment was originally a mobile scanner, check box if it is now • permanently parked ("wheels off" or on) or • installed in a building	☐ Parked ☐ Installed
Service Site Information: Please include **all** the information requested.	Service Site Carolina Imaging of Fayetteville Address 925 Bradley St. NE City: Fayetteville Zip 28304 County Cumberland
Inpatient Procedures*: - with Contrast or Sedation - without Contrast or Sedation Outpatient Procedures*: - with Contrast or Sedation - without Contrast or Sedation **Total Number of Procedures**	Inpatient: with: _____ w/out: _____ Total: _____ Outpatient: with: 1080 w/out: 3315 Total: 4395 **Total**: 4395
For each day of the week, enter the **number of hours** the scanner is in operation.	___ Sunday 12 Thursday 12 Monday 12 Friday 12 Tuesday 8 Saturday 12 Wednesday
Total number of hours in operation for reporting period	3,504 Hours

*An **MRI procedure** is defined as a single discrete MRI study of one patient (single CPT coded procedure). An MRI study means one or more scans relative to a single diagnosis or symptom. **The total number of procedures should be equal to or greater than the total number of patients reported on the MRI Patient Origin Table on page 3 of this form.**

Name of entity that acquired the equipment (from page 1) Carolina Imaging of Fayetteville, LLC

ATTACHMENT C

Projected Capital Cost Form

Carolina Imaging, LLC - Fayetteville MRI #2 Replacement

Building Purchase Price		
Purchase Price of Land		
Closing Costs		
Site Preparation		
Construction/Renovation Contract(s)	$	350,000
Landscaping		
Architect / Engineering Fees	$	-
Medical Equipment	$	1,590,955
Other Equipment	$	3,393
Furniture	$	16,000
Information Technology	$	10,000
Financing Costs	$	-
Interest during Construction		
Other: Contingency	$	-
Total Capital Cost	**$**	**1,970,348**

CERTIFICATION BY A LICENSED ARCHITECT OR ENGINEER

I certify that, to the best of my knowledge, the projected construction costs for the proposed project is complete and correct.

DocuSigned by:
Amber Riddle
E56B8C5EC28342C...

Date Signed: 07/13/2021 | 10:58:47 EDT

Signature of Licensed Architect or Engineer

Amber Riddle, McCulloch England Associates

CERTIFICATION BY AN OFFICER OR AGENT FOR THE PROPONENT

I certify that, to the best of my knowledge, the projected total capital cost for the proposed project is complete and correct and that is our intent to carry out the proposed project as described.

DocuSigned by:
Doug Shepard
74F8A801DCA64D0...

Date Signed: 07/13/2021 | 11:25:58 EDT

Signature of Officer/Agent

Director, Real Estate & Development, MedQuest Imaging

Title of Officer/Agent

ATTACHMENT D

EQUIPMENT COMPARISON

Carolina Imaging of Fayetteville, LLC - MRI #2 Replacement	**EXISTING EQUIPMENT**	**REPLACEMENT EQUIPMENT**
Type (e.g., Cardiac Catheterization, Gamma Knife®, Heart-lung bypass machine, Linear Accelerator, Lithotriptor, MRI, PET, Simulator, CT Scanner, Other Major Medical Equipment)	MRI	MRI
Manufacturer	GE Healthcare	GE Healthcare
Model number	Signa HDi 1.5T	Pioneer 3T
Other method of identifying the equipment (e.g., Room #, Serial Number, VIN #)	Room #2	Room #2
Is the equipment mobile or fixed?	Fixed	Fixed
Date of acquisition	2009	TBD
Was the existing equipment new or used when acquired? / Is the replacement equipment new or used?	New	New
Total projected capital cost of the project <Attach a signed Projected Capital Cost form>	NA	$1,590,955
Total cost of the equipment	NA	$1,970,348
Location of the equipment <Attach a separate sheet for mobile equipment if necessary>	Carolina Imaging - Fayetteville	Carolina Imaging - Fayetteville
Document that the existing equipment is currently in use	See Attachment	NA
Will the replacement equipment result in any increase in the **average charge per procedure**?	NA	No
If so, provide the increase as a percent of the current average charge per procedure	NA	NA
Will the replacement equipment result in any increase in the **average operating expense per procedure**?	NA	No
If so, provide the increase as a percent of the current average operating expense per procedure	NA	NA
Type of procedures performed on the existing equipment <Attach a separate sheet if necessary>	MRI Scans	NA
Type of procedures the replacement equipment will perform <Attach a separate sheet if necessary>	NA	MRI Scans

Date of last revision: 5/17/19