NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor

KODY H. KINSLEY • Secretary

MARK PAYNE • Director, Division of Health Service Regulation

VIA EMAIL ONLY

July 24, 2023

Kim Meymandi
kimmeymandi@ascendient.com

Exempt from Review – Replacement Equipment
Record #:   **4238**
Date of Request: July 14, 2023
Facility Name: Carolinas Neurosurgery & Spine Associates
FID #:   021204
Business Name: Carolinas Neurosurgery & Spine Associates, PA
Business #:   396
Project Description: Replace existing mobile MRI scanner
County: Mecklenburg

Dear Ms. Meymandi:

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 SIGNA VOYAGER MR30 1.5T mobile MRI scanner to replace the GE SIGNA HDxt 1.5T
mobile MRI scanner (VIN #773131132122182). 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,

Julie M. Faenza

Julie M. Faenza
Project Analyst

Micheala Mitchell

Micheala Mitchell
Chief

cc: Acute and Home Care Licensure and Certification Section, DHSR

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF HEALTH SERVICE REGULATION

HEALTHCARE PLANNING AND CERTIFICATE OF NEED SECTION

LOCATION: 809 Ruggles Drive, Edgerton Building, Raleigh, NC 27603
MAILING ADDRESS: 809 Ruggles Drive, 2704 Mail Service Center, Raleigh, NC 27699-2704
https://info.ncdhhs.gov/dhsr/ • TEL: 919-855-3873

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

CAROLINA
NeuroSurgery & Spine
ASSOCIATES

Physicians:

Tim E. Adamson, MD

Anthony L. Asher, MD, FACS

Peter W. Bailey, MD

Albert K. Bartko, III, MD

Joe D. Bernard, Jr., MD

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John A. Welshofer, MD

David R. Wiercisiewski, MD

John E. Ziewacz, MD, MPH

July 13, 2023

VIA ELECTRONIC MAIL
Ms. Micheala Mitchell, Chief
Ms. Julie Faenza, Project Analyst
Healthcare Planning and Certificate of Need Section
Division of Health Service Regulation, NC DHHS
2704 Mail Service Center
Raleigh, NC 27699-2704
Micheala.Mitchell@dhhs.nc.gov
Julie.Faenza@dhhs.nc.gov

RE: **Request for Exemption from Review to Replace Existing Mobile MRI Equipment Under $3,000,000**
        Facility Name: Carolina Neurosurgery & Spine Associates, P.A.
        County: Mecklenburg
        Project ID: #F-6734-03

Dear Ms. Mitchell and Ms. Faenza:

Please accept this letter as notification of Carolina Neurosurgery & Spine Associates' (CNSA's) intent to replace an existing unit of Mobile MRI equipment for a total cost less than $3,000,000 pursuant to N.C. Gen. Stat. § 131E-184(a)(7) and 10A NCAC 14C .0303.

Under N.C. Gen. Stat. § 131E-184(a)(7), the CON law provides that an applicant's proposal "[t]o provide replacement equipment" is exempt from Certificate of Need review if the Department receives prior written notice from the entity proposing the new institutional health service, including an explanation of why the new institutional health service is required. Replacement equipment is defined in the CON law under N.C. Gen. Stat. § 131E-176(22a)[1] as:

> "Equipment that costs less than three million dollars ($3,000,000) and is purchased for the sole purpose of replacing comparable medical equipment currently in use which will be sold or otherwise disposed of when replaced. In determining whether the replacement equipment costs less than three million dollars ($3,000,000), the costs of equipment, studies, surveys, designs, plans, working drawings, specifications,

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[1]   Please note that the text cited below is as amended by Session Law 2023-7, which was enacted March 27, 2023, with the cited portion effective immediately.

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construction, installation, and other activities essential to acquiring and making operational the replacement equipment shall be included. The capital expenditure for the equipment shall be deemed to be the fair market value of the equipment or the cost of the equipment, whichever is greater. Beginning September 30, 2023, and on September 30 each year thereafter, the cost threshold amount in this subdivision shall be adjusted using the Medical Care Index component of the Consumer Price Index published by the U.S. Department of Labor for the 12-month period preceding the previous September 1."

As set forth below, CNSA's proposed equipment replacement meets the definition of replacement equipment and is exempt from Certificate of Need review.

CNSA seeks to acquire a GE Signa Voyager MR30 Mobile MRI scanner (Replacement Equipment) to replace CNSA's existing GE Signa HDxT Mobile MRI scanner (Existing Equipment). The proposed replacement is needed as the Existing Equipment, which has been in operation since it was originally put into service in 2013, is beyond its useful life. A completed Equipment Comparison Form is included in Attachment 1. The Replacement Equipment is functionally similar to the Existing Equipment and will be used for the same diagnostic and treatment purposes, although the Replacement Equipment will possess expanded capabilities given technological advancements. The proposed Replacement Equipment will not be used to provide a new health service and will not result in more than a 10 percent increase in patient charges or per procedure operating expenses within the first 12 months after it is acquired. Further, as documented in Attachment 2, the Existing Equipment will be used by CNSA outside of North Carolina and will not be otherwise utilized in the state without permission after its replacement.

The total proposed capital cost for the proposed equipment replacement, including all costs associated with equipment, studies, surveys, designs, plans, working drawings, specifications, construction, installation, and other activities essential to acquiring and making the Replacement Equipment operational, is $1,946,404. Attachment 3 contains a Quote for the proposed Replacement Equipment and all associated systems and tools. As a mobile diagnostic program, the Replacement Equipment, which includes the MRI scanner and trailer to house it, is self-contained and does not require any additional equipment to make the scanner operational. As documented in Attachment 2 the

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existing equipment will not be used again in the state of North Carolina without Agency approval.

As outlined above and illustrated in the Attachments, the proposed Replacement Equipment qualifies as replacement equipment pursuant to regulatory and statutory definitions (N.C. Gen. Stat. § 131E-176(22a) and 10A NCAC 14C .0303). As such, the proposed project is exempt from Certificate of Need review pursuant to N.C. Gen. Stat. § 131E-184(a)(7).

If you could, please confirm that you agree with our understanding that the proposed Replacement Equipment is exempt from Certificate of Need review. Please do not hesitate to contact me if any additional information is needed.

Sincerely,

Amanda Snyder

Amanda Snyder
Chief Operating Officer
Carolina Neurosurgery & Spine Associates, P.A.

Attachment 1 – Equipment Comparison Form
Attachment 2 – Letter Re: Continuous Historical Use and Future Disposition of Existing Equipment
Attachment 3 – Replacement Equipment Quote

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Attachment 1
EQUIPMENT COMPARISON FORM

	EXISTING EQUIPMENT	*REPLACEMENT EQUIPMENT*
Type of Equipment (List Each Component)	MRI	MRI
Manufacturer of Equipment	GE	GE
Model Number	SIGNA HDxt 1.5T	SIGNA VOYAGER MR30 1.5T
Serial Number	VIN# 773131132122182	TBD
Specify if Mobile or Fixed	Mobile	Mobile
Date of Acquisition	2013	~8/15/2023
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.)	N/A	$1,946,404
Total Cost of Equipment	$1,217,209	$1,946,404
Fair Market Value of Equipment	N/A	$1,946,404
Net Purchase Price of Equipment	N/A	$1,946,404
Locations Where Operated	Carolina Neurosurgery & Spine Associates	Carolina Neurosurgery & Spine Associates
Number Days In Use/To be Used in N.C. Per Year	365	365
Percent of Change in Patient Charges (by Procedure)	NA	0%
Percent of Change in Per Procedure Operating Expenses (by Procedure)	NA	<10%
Type of Procedures Currently Performed on Existing Equipment	MRI Scans	NA
Type of Procedures New Equipment is Capable of Performing	MRI Scans	MRI Scans

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Attachment 2
LETTER RE: Continuous Historical Use and Future Disposition of Existing Equipment

[attached]

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July 13, 2023

Ms. Micheala Mitchell, Chief
Ms. Julie Faenza, Project Analyst
Healthcare Planning and Certificate of Need Section
Division of Health Service Regulation, NC DHHS
2704 Mail Service Center
Raleigh, NC 27699-2704
Micheala.Mitchell@dhhs.nc.gov
Julie.Faenza@dhhs.nc.gov

Dear Ms. Mitchell and Ms. Faenza:

Carolina Neurosurgery & Spine Associates (CNSA) currently owns and operates a GE Signa HDxT Mobile MRI scanner (Existing Equipment) that has been in operation continuously at various CNSA offices since it was originally acquired in 2013. The existing equipment has not been taken out of service since originally acquired in 2013, except on a temporary basis as needed for repairs.

CNSA proposes to replace the Existing Equipment with a new GE Signa Voyager Mobile MRI scanner, and it will serve the same sites for which the existing equipment has been approved. CNSA will retain the Existing Equipment to be used outside of North Carolina but attests that it will not be otherwise utilized in North Carolina without permission after its replacement.

Please contact me with any questions regarding this matter.

Sincerely,

Amanda Snyder

Amanda Snyder
Chief Operating Officer
Carolina Neurosurgery & Spine Associates, P.A.

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Attachment 3
REPLACEMENT EQUIPMENT QUOTE

[attached]

Carolina Neurosurgery & Spine Associates PA
14135 Ballantyne Corporate Pl
Charlotte, NC 28277-3383

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:	Novation Vizient Supply LLC
Terms of Delivery	FOB Destination
Billing Terms	80% on Delivery / 20% on Acceptance
Payment Terms	45 Net
Total Quote Net Selling Price	$ 1,946,403.77
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 Neurosurgery & Spine Associates PA

Signature: _____

Print Name: _____

Title: _____

Date: _____

_____
Purchase Order Number, if applicable

GE Precision Healthcare LLC, a GE Healthcare business

Signature: Bob Garlington

Title: Account Manager - VASO Mfr Rep

Date: February 15, 2023

GE Healthcare

To Accept This Quotation

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

Name: Bob Garlington

Email: bob.garlington@ge.com

Phone: +1 8653122474

Fax:

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

Addresses:

Carolina Neurosurgery & Spine Associates PA

Bill To:	Carolina Neurosurgery & Spine Associates PA	14135 Ballantyne Corporate Pl, Charlotte, NC, US, 28277-3383
Ship To:	Carolina Neurosurgery & Spine Associates PA	14135 Ballantyne Corporate Pl, Charlotte, NC, US, 28277-3383

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	**1.00**	**Y0000LC**	**Pricing Non-Disclosure Language**

This CONFIDENTIAL offer may not be shared with any third parties, buying evaluation groups or anyone not directly employed by customer. This offer is being extended in relation to a national show-site agreement, research partnership, or other non-standard transaction. If required for publishing, GE will happily provide a list price quote.

Line	Qty	Catalog	
2	**1.00**	**Y0000GD**	**US Lamboo Medical Mobile Unit powered by SVSR (For tracking purpose only - non purchasable catalog)**

US Lamboo Medical Mobile Unit powered by SVSR (For tracking purpose only - non purchasable catalog)

Line	Qty	Catalog	
3	**1.00**	**S7530VD**	**SIGNA™ Voyager Fixed Table 30.0 Mobile MR System**

The SIGNA™ Voyager MR30 1.5T 70cm wide-bore magnetic resonance system was designed to enable you to deliver both clinical excellence and operational efficiency while addressing the cost of ownership for 1.5T wide-bore technology. With SIGNA™ Voyager simplify and accelerate the scanning process from set-up to acquisition to post-processing for your technical staff, with access to an extensive range of clinical imaging and advanced visualization capability for your clinicians.

This configuration of SIGNA™ Voyager MR30 is designed for installation in the mobile environment. The system catalog comprises the magnet, RF-architecture electronics, core RF coil suite, gradient electronics, reconstruction engine and patient table. In addition, the necessary system cabinets, site collectors, installation collectors and calibration phantoms required for installation are part of this system catalog:

- 1.5T high-homogeneity magnet for the mobile environment
- TDI RF-Receive Technology and RF Coil Suite
- UHE with IGC Gradient and Quiet Acoustic Reduction Technology
- Reconstruction Engine
- MR 30 for SIGNA™ ADVANCED APPLICATIONS

TECHNOLOGY FOUNDATION

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

High-Homogeneity Magnet

The magnet is the foundation of the system, and the high-homogeneity SIGNA™ Voyager magnet is designed to provide large field-of-view imaging with uniform image quality. As a result, large anatomy can be imaged with a FOV of up to 50 cm, and off-center anatomy, such as the upper extremity, can be imaged without the need to position the anatomy at the magnet center. In addition, the SIGNA™ Voyager magnet delivers the robust fat suppression capability needed for musculoskeletal and body imaging as well as the performance needed for demanding applications such as diffusion imaging and spectroscopy. To address siting and operating costs, the SIGNA™ Voyager magnet utilizes active-shielding technology to enable flexible siting, including siting in the mobile environment, and zero-boil technology to address the need for helium refills.

- Patient bore: 70 cm x 70 cm
- Patient aperture: 74 cm
- 2-way in-bore intercom system
- Adjustable in-bore lighting
- Adjustable in-bore ventilation
- Shielding: active
- Shimming: active and passive

Total Digital Imaging (TDI) and RF Coil Suite

SIGNA™ Voyager MR30 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, low noise with extended dynamic range or gray-scale capability.

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

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

The TDI Posterior Array is designed to simplify workflow and enhance efficiency for the technologist. The PA coil is embedded in the patient table and can be used in conjunction with the HNU (included) and the Anterior Array (sold separately). Whole-body imaging and parallel imaging in 3 directions are supported. In addition, the system will automatically select the appropriate subset of coil elements based on the prescribed FOV and is invisible to additional surface coils when they are placed directly on top of the surface.

• Elements: 32
• Length: 120.5 cm; Width: 46.6 cm
• S/I coverage: 113 cm
• 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 superior end of the HNU can be elevated to enhance patient comfort and access. The HNU is designed to be used in conjunction with the TDI Posterior Array and the Anterior Array (sold separately). Parallel imaging in 3 directions is supported.

• Elements: up to 21 combined with PA
• 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

UHE with IGC Gradient Technology and Quiet Technology

SIGNA™ Voyager introduces the Ultra High Efficiency (UHE) gradient system with Intelligent Gradient Control technology (IGC). 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™ Voyager delivers exceptional minimum TR and TE capability while reducing power consumption. 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 50 cm
• Duty Cycle: 100%

Designed to deliver an enhanced patient experience, SIGNA™ Voyager features Quiet Acoustic Reduction Technology (ART) that significantly addresses both vibrational noise and airborne sound. 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

Reconstruction Engine – Gen7 Dual Intel Xeon Gold 5118

SIGNA™ Voyager 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. Smart AIR™ Recon is available on several key applications.

• Memory: >= 128 GB
• Hard Disk Storage: 960 GB
• 2D FFT/second (256 x 256 Full FOV): 63,000 2DFFT/second

SIGNA™ Voyager 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.

The SIGNA™ Voyager MR30 offers a fully integrated Comfort Plus patient table that includes the embedded TDI Posterior Array (previously described) to address exam efficiency as well as patient comfort. The Comfort Plus patient table can be lowered to a very low height to facilitate transfer of wheelchair patients. The cradle width has also been increased by ~30% from previous generations to enhance the ability to accommodate a broad 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
• IntelliTouch & laser land-marking
• Laser alignment land-marking

MR 30 for SIGNA™ ADVANCED APPLICATIONS

The MR 30 for SIGNA™ clinical imaging tools are organized and optimized to address six clinical work areas: NeuroWorks, OrthoWorks, BodyWorks, OncoWorks, CVWorks and PaedWorks. Each clinical toolkit comprises pre-programmed protocols, clinical applications and visualization tools designed for the challenges of each imaging area. In addition, MR 30 for SIGNA™ provides advanced applications that extend and enhance the clinical capability and performance of the MR 30 toolkits (quoted and described separately).

Advanced Application for NeuroWorks
• eDWI enhanced diffusion with Multi-B value and SmartNEX
• DTI diffusion tensor imaging
• FiberTrak post-processing for diffusion tensor to display white matter tracking
• 3D SWAN 2.0 GRE-based multi-echo susceptibility imaging including phase image
• PROBE PRESS SV brain spectroscopy
• Inhance 2.0 non-contrast MRA suite (3D velocity, 2D inflow, inflow IR, and Deltaflow)

Advanced Applications OrthoWorks
• MAVRIC SL 3D FSE-based spectral imaging for MR-Conditional implants with T1, PD, T2 and STIR
• CartiGram T2 cartilage mapping

Advanced Applications for BodyWorks
• 3D LAVA GRE 2-point Dixon fat-water separation for dynamic or single-phase imaging (breath-hold or free-breathing)
• IDEAL FSE 3-point Dixon fat-water separation
• Flex 2-point Dixon fat-water separation for 2D FSE, 3D Cube and GRE
• Inhance 2.0 non-contrast MRA suite with 3D velocity, 2D inflow, inflow IR and Deltaflow
• StarMap iron assessment for liver and heart (acquisition)

Advanced Applications for OncoWorks
• eDWI enhanced diffusion with Multi-B value and SmartNEX
• 3D LAVA GRE 2-point Dixon fat-water separation for dynamic or single-phase imaging (breath-hold or free-breathing)

Advanced Applications for CVWorks
• Cine IR fast gradient echo with IR-prep pulse
• 2D MDE IR-prep and gated, fast gradient echo imaging with wide bandwidth suppression and single-shot
• 2D PS MDE phase sensitive tissue characterization with wide bandwidth suppression and single-shot

In addition, the MR30 for SIGNA™ upgrade may require additional upgrades based on the upgrade checklist for your specific system. These elements are described and quoted separately, and may include:

• GOC (PC)
For a period of 3 years from Equipment Acceptance, GE Healthcare will provide Customer (as part of the Equipment warranty) with the following software changes to the extent they maintain existing software features of the Equipment and are made generally available to GE Healthcare's installed customer base as part of warranty: (i) updates, which consist of error corrections or modifications; (ii) interface modifications; and (iii) security patches that have been validated by GE Healthcare to be compatible with the Equipment. Software upgrades (including revisions or enhancements to (i) the Equipment's software or (ii) separately licensed Software), which improve or expand existing software features and are made generally available for purchase under a separate GE Healthcare license, are excluded. Additional hardware required to implement the software changes are excluded. GE Healthcare remote connectivity to the Equipment is required per GE Healthcare terms and conditions.

Line	Qty	Catalog	
4	1.00	M70082AE	**MR 30 Software for SIGNA™ Voyager**

MR 30 for SIGNA™ delivers the foundational operating software, pulse sequence families, clinical applications toolkits, and visualization toolkits as well as acceleration and motion correction tools. MR 30 for SIGNA™ software features several new enhancements that improve Exam, Patient Setup and Scanning workflows.

MR 30 for SIGNA™ is the latest platform software to bring the highest performance to SIGNA™ MR. MR 30 introduces several base security, workflow and image quality enhancements, as well as enabling GE Healthcare's the latest innovations in Deep Learning Reconstruction*. Each scanner running MR 30 Platform will enjoy industry-leading cybersecurity features* by upgrade to Secure Scientific Linux (SLES 15), enabling the latest features for securing the scanner against bad actors and other threats for years to come. MR 30 software brings in additional workflow efficiency, including a new Window Width/Window Level feature that applies consistent levels across all images in the database; simplified setup for Automatic Phase Correction; an improved phase correction algorithm for LAVA FLEX* images and a Motion Compensation option when using Cardiac T1-Mapping applications such as FIESTA. The system will also now support a system preference to set the orientation of axial Breast images. Systems already equipped with HyperSense* will see the feature expanded to support SWAN and Contrast Enhanced MRA applications. The MR 30 for SIGNA™ software release brings AIR™ Recon DL* 3D, motion-insensitive PROPELLER and a host of additional applications such as DTI, FSE Flex, CartiGram, as well as phase sensitive MDE and MoCo MOLLI T1 mapping for cardiac imaging.

(* indicated applications may be purchasable options for certain regions and systems).

The latest enhancements include several key improvements to Exam, Patient Setup and Scanning workflows:

• Split Exam create/assign separate exam number for a sub-set of series
• AIR™ Recon smart algorithm for brain, MSK, body, cardiac, PROPELLER MB and FOCUS DWI imaging
• Whole-Body automated multi-station localizer and auto pasting
• Whole-Body automated multi-station FSE-IR, 3D SPGR and DWI imaging
• SnapShot SSFSE multi-slice per breath-hold imaging
• Cube flexibility for modifying/reducing scan time
• Dynamic phase correction for FSE imaging
• Uniformity optimization for large FOV body diffusion
• Flexible ZIP allows for flexible resolution by percentage to enhance the sharpness while decreasing the scan time

EXPRESS EXAM WORKFLOW

MR 30 for SIGNA™ workflow tools comprise the modality worklist, protocol libraries, workflow manager, auto-functions, inline viewing and inline processing. Together these tools are designed to help change the way you work by simplifying and accelerating the scanning process from set-up to acquisition to post-processing. With MR 30, 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, MR 30 workflow maintains the flexibility needed to rapidly adapt and optimize exams for specific patient situations.

MR30 Workflow delivers new capabilities that speed set-ups for all exams and streamline scanning for multi-station and combination exams. With MR30 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 in 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. 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.

With the patient positioned, IntelliTouch and AIR Touch™ together simplify coil selection 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 MR 30 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.

When selected, AutoStart will 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.
- For breath-hold scanning, Auto Protocol Optimization provides automated alternative choices for spatial resolution and breath-hold time based on the original protocol. Technologists are liberated from troublesome scan time and image quality adjustments by selecting from pre-calculated options determined by the system.
- Whole Body Localizer automates the acquisition and pasting of multi-station scans for planning, and Whole-Body Imaging enables automated multi-station scanning with FSE-IR, 3D SPGR and DWI diffusion contrasts.
- Once scanning and processing are complete, Split Exam provides the capability to extract a subset of series from multi-station and combination exams to create/assign a separate exam number for accession numbers in billing and PACS systems.

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

MR 30 for SIGNA™ TECHNOLOGIES

The acceleration, motion correction and tissue suppression technologies in MR 30 for SIGNA™ 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

MR 30 for SIGNA™ delivers a suite of acceleration techniques designed to help address acquisition time.
- Smart Algorithm AIR™ Recon uses a smart reconstruction algorithm to address background noise and artifacts enabling enhanced image quality without the need for longer scan times and is compatible with critical imaging sequences including PROPELLER MB, 3D Cube, and FSE.
- ARC parallel imaging reduces scan time by using an adaptive auto-calibrating (data-driven) technique to selectively acquire data. As a result, ARC enables smaller FOV prescription with less sensitivity to motion and 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 to create an image.
- Flexible No Phase Wrap reduces scan time by reducing the number of increments acquired to address wrap-around 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.
- 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 Auto Body Navigators to enable usage for a broad range of exams. With MR 30 for SIGNA™, PROPELLER MB motion correction benefits from AIR™ Recon smart algorithm image quality.

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
- WaterSat frequency selective water suppression
- STIR inversion pulse fat or water suppression
- SPECIAL frequency selective fat suppression
- ASPIR spectrally selective fat suppression
- Flex 2-point Dixon techniques to separate fat and water signals

MR 30 for SIGNA™ CLINICAL APPLICATIONS

MR 30 for SIGNA™ clinical imaging tools are organized and optimized to address six clinical work areas: NeuroWorks, OrthoWorks, BodyWorks, OncoWorks, CVWorks and PaedWorks. Each clinical toolkit comprises pre-programmed protocols, clinical applications and visualization tools designed for the challenges of each imaging area. The resulting capability starts with simplified prescription and protocol set-up. Imaging capability extends to patient management and clinical workflow enhancements. Post-processing capability augments the portfolio with specialized tools designed to speed the review and processing tasks typically performed.

NeuroWorks Toolkit

- 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
- 3D Cube 2.0 FSE-based imaging with T1, T2, T1 FLAIR, T2 FLAIR and STIR
- 3D Cube Dual Inversion Recovery for gray or white 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
- BrainStat GVF and AIF parametric maps
- READYView and BrainView post-processing which include time series, DWI/ADC maps, DTI, variable echo, BOLD, and spectroscopy (SV, 2D, 3D)

OrthoWorks Toolkit

- FSE and frFSE fast spin echo imaging suites with dynamic phase correction
- High Bandwidth distortion reduction for FSE
- FatSat, STIR, SPECIAL, ASPIR, Spectral Spatial fat-suppression tools
- MARS High Bandwidth distortion reduction for FSE
- 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
- 3D COSMIC modified steady state imaging
- 2D/3D MERGE T2* multi-echo fast gradient echo imaging
- READYView post-processing

BodyWorks Toolkit

- 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
- 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 (breath-hold or free-breathing)
- 3D MRCP frFSE imaging
- 2D Fat Sat FIESTA fast steady state imaging
- Enhanced SSFSE Snapshot multi-slice imaging
- Whole-Body multi-station localizer and pasting
- Whole-Body multi-station FSE-IR, 3D SPGR and DWI imaging
- Multiphase DynaPlan
- SmartPrep automated bolus detection

• Fluoro Trigger real-time bolus monitoring

OncoWorks Toolkit

• 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
• 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
• Whole-Body multi-station localizer and pasting
• Whole-Body multi-station FSE-IR, 3D SPGR and DWI imaging
• 3D LAVA and Turbo LAVA with Turbo ARC and SPECIAL for dynamic or single-phase imaging (breath-hold or free-breathing)
• Multiphase DynaPlan
• SmartPrep automated bolus detection
• Fluoro Trigger real-time bolus monitoring
• READYView, BrainView and BodyView post-processing

CVWorks Toolkit

• 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 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
• READYView post-processing

PaedWorks Toolkit

• 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
• Auto Navigators diaphragm tracker free-breathing scanning
• 3D LAVA and Turbo LAVA with Turbo ARC and SPECIAL for dynamic or single-phase imaging (breath-hold or free-breathing)
• 3D LAVA GRE 2-point Dixon fat-water separation for dynamic or single-phase imaging (breath-hold or free-breathing)
• Enhanced SSFSE Snapshot multi-slice imaging
• BrainStat GVF and AIF parametric maps
• READYView and BrainView post-processing

READYView Advanced Visualization

READYView is an MR 30 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	
5	1.00	M70024HR	SIGNA_LX1.MR30.0 SW eDelivery

Software eDelivery is used to associate the MRI scanner with GE HealthCare's remote software delivery infrastructure. No items are being delivered physically or electronically. (For tracking purpose only – non purchasable catalog)

Line	Qty	Catalog	
6	1.00	M70072HA	SIGNA™ Voyager MR30 GOC

Computing Platform

The MR30 upgrade takes SIGNA™ to the latest computing performance level that utilizes a parallel, multi-processor design to enable simultaneous scanning, reconstruction, filming, post-processing, archiving and networking. The host computer uses the SuSe Linux Enterprise Server operating system and a single tower configuration. (The reconstruction engine is sold separately and offers a choice of performance levels.)

Host PC Platform – Intel Xeon W-2123 CPU

- Memory: 64 GB
- Hard Disk Storage: 1024 GB SSD
- Media Drives: CD/DVD

Line	Qty	Catalog	
7	1.00	M70072AR	SIGNA Voyager 33 to 49 Channel Upgrade

SIGNA Voyager 33 to 49 Channel Upgrade

Line	Qty	Catalog	
8	1.00	M70012TS	Voyager 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	
9	1.00	M70012RP	English Language Kit

English Language Kit

Line	Qty	Catalog	
10	1.00	R33012AC	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	
11	1.00	S7530RD	AIR™ Recon DL 2D and 3D and AIRx™ Package

Comprehensive AIR™ Recon DL package for 70cm 1.5T MR Systems

AIR™ Recon DL is a pioneering, deep-learning based reconstruction algorithm that improves SNR and sharpness of 2D, DWI, PROPELLER and 3D images. This propriety technique improves image quality at the foundational level by removing image noise and ringing artifacts while enabling shorter scan times. With AIR™ Recon DL, customers will be able to:

- Apply a tailored level of AIR™ Recon DL based on preference
- Enable the most commonly applied 2D, DWI, PROPELLER and 3D sequences without anatomical limitations
- Visualize AIR™ Recon DL images directly at the MR console without reconstruction delays

AIR x™ Auto Graphic Prescription package

AIR x™ Auto Graphic Prescription replaces traditional atlas-based methods with deep learning algorithms to automatically identify anatomical structures and prescribe slices locations for brain and knee exams. As a result of the deep learning algorithms, AIR x™ automatically adapts slice prescriptions for normal patient variants in various patient anatomies and structures to enable consistency and productivity for slice positioning from technologist to technologist, patient to patient and the same patient overtime. The AIR x™ Auto Graphic Prescription package provides solutions for two high-volume exams, brain, and knee.

- AIR x™ auto graphic slice prescription for brain exams
- AIR x™ auto graphic slice prescription for knee exams

NOTE: This Application bundle is only available for SIGNA™ Artist and Voyager systems when sold with MR30 Application software.

Line	Qty	Catalog	
12	1.00	S7529SA	**HYPERWORKS**

This new generation of hyper-acceleration tools employ optimized approaches to accelerate data collection and reduce scan time. Sparse data sampling and tailored RF are used for volumetric imaging, simultaneous slice excitation is used for diffusion, tensor and echo-planar imaging and customized spectral selection is used for MR-Conditional implant imaging. Together the HyperWorks tools can be used to accelerate a broad range of exams.

- HyperSense 3D compressed sensing acceleration for volumetric imaging
- HyperSense 2.0 3D compressed sensing acceleration for volumetric imaging
- HyperCube tailored RF excitation for accelerated 3D Cube imaging
- HyperBand simultaneous multi-slice acceleration for DWI, DTI, and fMRI imaging
- HyperMAVRIC SL accelerated spectral imaging for MR-Conditional implants

HyperSense uses sparse data sampling to enable faster imaging without the penalties commonly found with conventional parallel imaging. HyperSense can be used with 3D Cube, 3D MRCP and 3D TOF sequences for brain, spine, MSK and vascular imaging. HyperSense 2.0 extends this acceleration technique to a broad range of 3D sequences to increase clinical utility. With HyperSense 2.0, compatibility extends to 3D MP-RAGE and 3D BRAVO for neuro imaging, 3D LAVA and 3D LAVA Flex for body imaging, 3D VIBRANT and 3D VIBRANT Flex (sold separately) for breast imaging, 3D DISCO and 3D DISCO Flex (sold separately) for body, liver, prostate and breast imaging. In addition, 3D gradient echo sequences including 3D MERGE, 3D FIESTA and 3D COSMIC become compatible.

HyperCube enables constrained/reduced phase FOV, and consequently reduced scan time, for small FOV organ-specific volumetric imaging while also addressing artifacts originating from outside of the prescribed FOV. HyperCube can be used throughout the body and is compatible with FatSat and Flex tissue suppression techniques. In addition, HyperCube can be combined with HyperSense for additive acceleration.

For diffusion imaging, HyperBand simultaneously excites multiple slices at different locations for diffusion, diffusion tensor and echo planar fMRI sequences. As a result, HyperBand can be used to reduce scan time, increase resolution or increase anatomical coverage.

For MR-Conditional implant imaging, HyperMAVRIC SL tailors and accelerates 3D MAVRIC SL based on the type of MR-Conditional implant. HyperMAVRIC SL automatically selects the number of spectra acquired to optimally reduce distortion and can enable shorter scan times when fewer spectra are needed. As a result, Hyper-accelerated 3D MAVRIC SL can provide isotropic resolution to address the need for multiplanar scans and enable multiplanar reformatting of the volumetric data.

Line	Qty	Catalog	
13	1.00	S7529SB	**DIFFUSION**

The Diffusion toolkit delivers capabilities that reduce distortion, correct for motion and increase spatial resolution and sensitivity for diffusion and diffusion tensor imaging.

- PROGRES distortion and motion correction for diffusion
- MUSE multi-shot high-resolution diffusion
- FOCUS DWI 2D slice-selective high-resolution diffusion
- MAGiC DWI diffusion-based synthetic multiple b-value imaging

PROGRES combines with diffusion and diffusion tensor sequences to enhance performance by using a reverse polarity technique to address distortion and correct for motion. The technique then outputs images with reduced susceptibility artifacts with no significant impact in overall

scan time.

For high resolution diffusion the toolkit provides two techniques. MUSE DWI uses a multi-shot technique, and can be combined with PROGRES, to deliver high resolution with reduced distortion. PROGRES is compatible with Auto Body Navigators, ASSET acceleration, FatSat and STIR. FOCUS enables high spatial resolution for small organ-specific fields-of-view. FOCUS DWI uses 2D slice selective excitation pulses to constrain/reduce the phase FOV and address artifacts from motion and unsuppressed tissue outside the FOV.

MAGiC DWI generates multiple synthetic b-values from one scan and allows the modification of b-values in real time without further scanning. As a result, higher diffusion values can be achieved in shorter scan times without stressing protocol parameters or sacrificing contrast or anatomy coverage. MAGiC DWI can be combined with the full range of diffusion sequences.

Line	Qty	Catalog	
14	1.00	M7006NA	**1.5T 16-channel AIR Anterior Array**

The 16-channel AIR Anterior Array (AA) is the next generation anterior array coil that allows flexibility in any direction to conform to the patient's anatomy. Based on the innovative AIR™ Coil technologies, the 1.5T 16ch AIR AA provides excellent image quality and acceleration performance, while improving the overall patient and user experience. The coil has been designed to adapt to various patient shapes and sizes, expanding positioning versatility.

Line	Qty	Catalog	
15	1.00	M70072CC	**1.5T Split Top Head Coil (Transmit/Receive)**

• Quadrature Birdcage design
• Internal diameter 28 cm, compatible with third-party stereotaxy frames and localizers
• Integrated mirror minimizes claustrophobia

Specifications:
• Elements: 1
• Maximum number of channels in max FOV: 1
• Dimensions (W x H x L) 42 x 36.6 x 42.5 cm
• Weight 5.5 kg
• S/I Coverage 38.2 cm
• R/L Coverage 28.1 cm

Line	Qty	Catalog	
16	1.00	S7529QU	**1.5T AIR™ MP Arrays and Positioner Kit**

This promotional coil package comprises:

• Large and Medium Multi-Purpose AIR™ Coils with coil positioner kit

The 21-channel 1.5T AIR™ MP Large and the 20-channel 1.5T AIR™ MP Medium Arrays utilize innovative AIR™ Coil technologies to expand positioning versatility, enhance patient and user experience, and deliver high performance acceleration and image quality.

These next generation multipurpose coils are designed to conform to various patient shapes and sizes and allow positioning in any direction. AIR™ MP Coil Large Array is recommended for use for Shoulder, Knee, Foot, Ankle, Hip, and Prostate imaging, and the AIR™ MP Coil Medium is recommended for Wrist, Elbow, and Cardiac Imaging.

The AIR™ MP Coil Positioner Kit provides a knee positioner, a foot-ankle positioner, a wedge pad, a U-shaped pad, and a strap kit. The Positioner Kit is compatible with both AIR™ MP Large and Medium Coils for positioning.

Line	Qty	Catalog	
17	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)**

• 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	
18	**1.00**	**E88221XA**	**Medrad MRXperion injector on pedestal mount**

The Medrad® MRXperion™ MR Injection System is a smart performer in the MR suite, delivering contrast fluid and data management.

Streamlined Injection Workflow
• Less time preparing for the injection and more
• time to focus on the patient and optimize
• procedure management.

Convenience at Point of Care
• On-board eGFR and Weight Based Dosing
• Calculators, an Injection Pressure Graph,
• Independent Test Inject and KVO functions.

Real-time Support
• Connect to VirtualCare® Remote Support* for
• advanced injector system diagnostics, seamless

Improved Efficiencies
• Snap-on/Twist-off Syringe Design
• Auto plunger advance and retract when attaching and detaching syringes
• Automatic filling and priming
• Injection/post-injection reminders
• Injection pressure graph

Reproducible Quality
• Proven track record of design and performance
• On-site field service and VirtualCare® Remote Support* for advanced injection system diagnostics and real-time support

Personalized Care
• Patient-Centric workflow design
• Protocol storage/retrieval
• On-board eGFR and Weight Based Dosing Calculators
• Injection enabled when head is tilted down

The MRXperion™ Injector package includes:
• Dual injector head on pedestal with integral double hook IV pole
• Scan room unit power supply with 40 ft. (12 m) DC cable
• Scan room fiber optic cable – 40 ft. (12 m)
• Control room fiber optic cable - 150 ft. (45 m)
• Fiber optic quick disconnect panel
• Fiber optic penetration panel kit
• Control room unit (display and pod) with hand-switch
• Display and pod power supplies
• CAT5 cable (display to pod) - 1 ft. (0.3m)
• CAT5 cable (pod to hospital network) - 25 ft. (7.6m)
• Power cords - North America and Japan (3 each), 10 ft. (3 m)
• Power cords – International (3 each), 10 ft. (3 m)
• Operators manual (English)
• Multi-lingual Operators manual CD
• Quick guides (English) for injector and hanger
• Installation manual (English)

• Service manual and schematics manual CDs (English)
• Warranty packet
• Installation, customer's operational training at time of installation, and one year full on-site warranty in Bayer service countries
• LAN port for VirtualCare Remote Service

An optional penetration panel filter kit E88221XC is intended to be used for an alternate installation of the power supply of the MEDRAD® MRXperion™ Injection System outside of a MR scan room.

System Specifications
System Capabilities
• Syringe Capacities:
• Syringe A: 65ml
• Syringe B: 115ml
• Programmable volume range (ml):
• Syringe A: 0.5 ml to max syringe volume in 0.1 ml increments from 0.5 ml to 31 ml, 1ml increments above 31 ml
• Syringe B: 1 ml to max syringe volume in 1 ml increments
• Programmable flow rate range (ml/sec)
• 0.01 to 10 ml/s in 0.01 ml/s increments between 0.01 and 3.1 ml/s
• 0.1 ml/s increments between 3.1 and 10 ml/s
• KVO (Keep Vein Open): 6 factory presets of 0.25 ml every 15, 20, 30, 45, 60 or 75 sec
• Test Inject: configurable from 0.5 ml to 20 ml in 0.1 ml increments
• Pressure range (psi): 6 factory presets from 100 to 325 PSI (690 to 2240 kPa)
• Injection / Post Injection Reminders: up to 5 settings of 1 sec to 20 minutes in 1 sec increments
• Injection protocol storage: 60 protocols up to 6 phases each
• Injection Hold / Pause: up to 20 minutes in 1 sec increments
• eGFR Calculator
• For adults: MDRD, Cockroft-Gault, Modified Cockroft-Gault and CKD-EPI methods
• For children: Bedside Schwartz method
• Weight Based Dosing Calculator: user Configurable
• Remote Service Capability: with optional VirtualCare Remote Support

Dimensions and Weight
Control Room Unit
• 15.58" (39.58 cm) W
• 12.71" (32.28 cm) H
• 10.23" (25.98 cm) D
• 17.6 lbs (8.0 kg)

Scan Room Unit
• 23.30" (59.0 cm) W
• 71.40" (181.0 cm) H
• 23.30" (59.0 cm) D
• 95.7 lbs (43.4 kg)

Power Supply
• 7.60" (19.0 cm) W
• 3.40" (9.0 cm) H
• 15.40" (39.0 cm) D
• 5 lbs (2.3 kg)

Electrical
• Voltage Requirements
• 100-240 VAC
• 50/60 Hz
• 120VA - 210VA

Line	Qty	Catalog	
19	1.00	**E88221XC**	**Penetration Panel for MEDRAD MRXperion injector**

The penetration panel filter kit is intended to be used for an alternate installation of the power supply of the MEDRAD® MRXperion™ Injection System outside of a MR scan room.
Penetration panel filter kit option includes:
• Filter assembly
• Mounting/centering ring

• Mounting screws
• Conductive O-ring (pre-installed on the filter)
• Power supply cable - 10 ft. (3 m)
• Installation instructions

Line	Qty	Catalog
20	1.00	**E80141HG**

Line	Qty	Catalog	
21	1.00	**W0301MR**	**TIP MR 1.5T Training Program**

This training program is designed for customers purchasing a GEHC 1.5T 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 12 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 15 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	
22	1.00	**NI_MR_PURC_SUPPLY**	**Mobile MRI Coach per Proposal #299, Suitable for Installation of GE Voyager 1.5T Magnet System**

Total Quote Subtotal	***$1,946,403.77***
Total Quote Net Selling Price:	***$1,946,403.77***

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

GE Healthcare

GPO Agreement Reference Information

Customer:	Carolina Neurosurgery & Spine Associates PA
Contract Number:	Novation Vizient Supply LLC
Billing Terms:	80% on Delivery / 20% on Acceptance
Payment Terms:	45 Net
Shipping Terms	FOB Destination

Offer subject to the Terms and Conditions of the applicable Group Purchasing Agreements currently in effect between GE Healthcare and Novation Vizient Supply LLC

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

This product offering is made per the terms and conditions of Vizient /GE Healthcare GPO Agreements as follows:

Imaging:
XR0882-MR, XR0702-Card./Vasc., XR0673-CT, XR0652-Mammo, XR0895-PET-CT, XR0895-Nuc Med, XR0715-R&F/RAD & XR0592-ICAR-EP/HEMO, XR0692-BMD

Ultrasound:
XR0918-Ultrasound

LCS:
CE7152(Anesthesia), CE7633 (Monitoring), CE3333 (Infant Care), CE7621 (DCAR) and XR0592 (EP).

Vizient: Please login to the Vizient Marketplace Website. If you require assistance or are experiencing issues, please contact Vizient for support: Email: Connect@VizientInc.com and Phone: 866-600-0618.

Martha Waller

Administrative Specialist 1

Division of Health Service Regulation, Certificate of Need Section North Carolina Department of Health and Human Services

Main: 919-855-3873
Office: 919-855-3885
martha.waller@dhhs.nc.gov

Help protect your family and neighbors from COVID-19.
Know the 3 Ws. Wear. Wait. Wash.
#StayStrongNC and get the latest at nc.gov/covid19

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Sent: Friday, July 14, 2023 8:56 AM
To: Mitchell, Micheala L <Micheala.Mitchell@dhhs.nc.gov>; Faenza, Julie M <Julie.Faenza@dhhs.nc.gov>
Cc: Waller, Martha K <martha.waller@dhhs.nc.gov>
Subject: [External] 2023 CNSA MRI Replacement Exemption

> **CAUTION:** External email. Do not click links or open attachments unless verified. Report suspicious emails with the Report Message button located on your Outlook menu bar on the Home tab.

Good morning-

I hope you all are doing well and staying dry during this deluge of rain.

Attached is a Notice of Exemption for Carolina Neurosurgery & Spine for your review. We look forward to your response.

Thanks and have a great weekend,

Kim Meymandi | Senior Consultant
kimmeymandi@ascendient.com | 919.226.1712 | linkedin | www.ascendient.com

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