

XR MRI, VAMC LAKE CITY, FL

PO# 573-B75017

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#### SIGNA™ Architect 3.0T 96-channel MR System

SIGNA™ Architect 3.0T is the most advanced and intuitive engineering in MR technology from GE Healthcare. Fueled by our new SIGNA™Works productivity platform, the SIGNA™ Architect is a harmonious design of form and function. Everything in its blueprint is crafted to significantly energize your productivity, enhance security, improve diagnostics and boost your bottom line.

The Architect configuration includes the system electronics, operating software, imaging software, post-processing software and RF coil suite:

- eXtreme Gradient Technology
- Acoustic Reduction Technology
- TDI Receive Technology
- Multi-Drive Transmit & PERFORM 2.0
- reFINE 3.0T Uniformity
- Volume Reconstruction Engine /Computing Platform and DICOM
- eXpress Docking Table
- Architect coil suite
- SIGNA™Flow workflow simplicity
- SIGNA™Works productivity platform

Total Digital Imaging: The SIGNA™ Architect Total Digital Imaging RF architecture delivers with 96 channel RF system. This technology delivers images with greater clarity and high SNR performance. The features of TDI include:

- Direct Digital Interface (DDI) employs an independent analog-to-digital converter to digitize inputs from each of the 96 RF channels. Every input is captured and every signal digitized to deliver high quality 3.0T images

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			<ul style="list-style-type: none"> <li>• The Architect system is prepared for Digital Surround Technology (DST) which delivers the capability to simultaneously acquire MR signal from the integrated body coil and the surface coil. By combining the digital signal from surface coil elements 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. This results in richer, higher quality spine and body images.</li> <li>• Digital Micro Switching (DMS) technology represents a revolutionary advance in RF coil design by replacing analog blocking circuits with advanced Micro Electro-Mechanical System (MEMS) based blocking circuits enabling a coil design that supports ultrafast coil switching times for further expansion of zero TE imaging capabilities.</li> </ul> <p>eXtreme Gradient Technology: The Architect delivers high temporal resolution through 3-axis gradient amplifier power supply and efficient gradient coil design as well as high spatial integrity through excellent magnet homogeneity and gradient linearity over a large FOV. In addition, the XRM gradients are non-resonant and actively shielded to minimize eddy currents, and use an innovative digital control architecture design to deliver high fidelity, accuracy and reproducibility.</p> <ul style="list-style-type: none"> <li>• Peak amplitude per axis: 44 mT/m</li> <li>• Up to 200 T/m/s instantaneous peak slew rate per axis</li> <li>• Peak current &amp; voltage: 830 Amps, 1650 Volts</li> <li>• Digital PI feedback loop control</li> <li>• Maximum FOV: 50cm</li> <li>• Duty Cycle: 100%</li> </ul> <p>Quiet Technology: The SIGNA™ Architect system features Acoustic Reduction Technology (ART) that delivers an enhanced patient experience by significantly reducing noise levels (up to 99% reduction in sound volume). Acoustic reduction is achieved through:</p> <ul style="list-style-type: none"> <li>• Gradient &amp; RF coil isolation</li> <li>• Acoustic dampening material</li> </ul>	

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			<ul style="list-style-type: none"> <li>• Vibro-acoustic isolation</li> <li>• Gradient waveform optimization</li> </ul> <p>MultiDrive RF architecture adjusts/optimizes 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 size and body habitus.</p> <p>PERFORM 2.0 combines RF body coil design, optimized pulse sequences, detailed predictive SAR modeling during prescription, and real-time SAR feedback and correction during scanning to help ensure high performance across all applications, tailored for each patient.</p> <p>reFINE designed to address the challenge of 3.0T high-field uniformity. Just like a home theater surround system can be optimized, with reFINE, you increase your control over improved RF pulse efficiency, so you get clearer, crisper signals no matter your patient composition or position. reFINE makes consistent 3.0T imaging the rule, not the exception.</p> <p>Computing Platform: The latest computing platform comes standard and utilizes a parallel, multi-processor design to enable simultaneous scanning, reconstruction, filming, post-processing, archiving, and networking. The keyboard assembly integrates an intercom speaker, microphone, volume controls, and emergency stop switch. Start scan, pause scan, stop scan and table advanced to center hot keys are also included.</p> <p>Orchestra reconstruction platform delivers a new software toolbox for advanced reconstruction approaches allowing the most demanding applications to be run seamlessly delivering enhanced productivity without reconstruction lag between scans and exams.</p> <p>DICOM: The SIGNA™ Architect system generates MR Image, Secondary Capture, Structured Report, and Gray Scale Softcopy Presentation State DICOM objects. The DICOM networking</p>	

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			<p>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 SIGNA™ Architect for further details.</p> <p>Architect Coil Suite: The Suite of coils is designed to enhance patient comfort and image quality while simplifying workflow by ensuring that the geometry of the surface coil matches the geometry of the patient. The Coil Package includes:</p> <ul style="list-style-type: none"> <li>• T/R Body Coil &amp; T/R Head Coil</li> <li>• PA, HNU &amp; AA Arrays</li> </ul> <p>The Posterior Array is designed to provide optimal element geometry for each targeted anatomy by using different element geometries for the cervical-to-thoracic spine transition, thoracic and lumbar spine, and the body.</p> <ul style="list-style-type: none"> <li>• Elements: 40</li> <li>• Length: 100 cm; Width: 40cm</li> <li>• S/I coverage: 100cm head-first or feet-first</li> <li>• Parallel imaging in all three scan planes</li> <li>• Head-first or feet-first positioning</li> </ul> <p>The PA coil is designed to be used in conjunction with the HNU, 1 or 2 AA coils combined (2nd is sold separately) or GEM Small AA (sold separately), and the GEM PV Array (sold separately). The PA coil is invisible to additional surface coils when they are placed directly on top of the surface.</p> <p>The Head and Neck Unit include the head base-plate and three anatomically optimized anterior arrays: the anterior Neuro-vascular array, the anterior cervical spine array, the anterior open-face array.</p> <p>The HNU may be positioned at either end of the eXpress table to support head-first or feet-first imaging and may remain in place for all body, vascular, spine, and the majority of MSK exams. The HNU base plate supports the patient's head, and the Comfort Tilt variable-degree ramp can be positioned under the HNU base</p>	

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			<p>plate to elevate the coil to match the patient's head and neck position.</p> <ul style="list-style-type: none"> <li>• Elements: up to 28 combined with PA and AA</li> <li>• Length: 49.5 cm; Width: 38.8 cm</li> <li>• Height with NV Array: 35.4 cm</li> <li>• Height with Cervical Array: 32.6 cm</li> <li>• Height with Open Array: 25.9 cm</li> <li>• S/I coverage: up to 50 cm with PA and AA</li> <li>• Parallel imaging in all three scan planes</li> <li>• Head-first or feet-first positioning</li> </ul> <p>The Anterior Array facilitates large field of view imaging for chest, abdomen, pelvis, and cardiac imaging. The AA coil 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. In addition, two of the AA's can be combined to perform coverage</p> <p>Oncologic imaging coverage.</p> <ul style="list-style-type: none"> <li>• Elements: up to 36 combined with PA</li> <li>• Length: 55.6 cm; Width: 67.4 cm</li> <li>• S/I coverage: 54 cm</li> <li>• R/L coverage: up to the full 50 cm FOV</li> <li>• Parallel imaging in all three scan planes</li> <li>• Head-first or feet-first positioning</li> </ul> <p>SIGNA™Flow is designed to standardize and accelerate workflows for patient set-up, exam prescription, scanning and post-processing. SIGNA™Flow can begin before the patient enters the magnet room and exams can be completed within a few mouse clicks – delivering quality and consistency for all patients and from all technologists. At the same time, SIGNA™Flow maintains the flexibility needed to rapidly adapt and optimize exams for patient specific situations.</p> <ul style="list-style-type: none"> <li>• In-Room Operator Console and controls</li> <li>• IntelliTouch land-marking</li> <li>• Protocol Libraries &amp; Management Tools</li> </ul>	

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			<ul style="list-style-type: none"> <li>• Workflow Manager &amp; Auto Functions</li> <li>• Inline Processing, Networking &amp; Viewing</li> <li>• Start Scan, Stop Scan, Pause/Resume Scan</li> <li>• ReadyView post processing on console</li> </ul> <p>deFINE takes the results of SIGNA™ Architect to the next level by enhancing the image appearance with integrated, in-line, optimizable settings. These settings can be generated for each individual sequence or for the entire exam. With deFINE, you meet your high quality image needs and go beyond the normal.</p> <p>eXpress Docking Table: The eXpress table is a mobile patient transport device with an embedded high-density, Posterior RF Array and touch sensitive IntelliTouch land-marking. The fully detachable eXpress table is easily docked and undocked by a single operator and simple to move in and out of the exam room for patient transport and preparation. These features can be vital in instances where multiple patient transfers can negatively impact patient care or when emergency extraction is required.</p> <p>The eXpress table and embedded PA coil are designed to accommodate head-first or feet-first imaging for all supported exams. The table features three high-density coil connection ports: one at each end and one embedded for the PA.</p> <ul style="list-style-type: none"> <li>• Maximum patient weight for scanning: 500 lbs</li> <li>• Maximum patient weight mobile: 500 lbs</li> <li>• Maximum patient weight for lift: 500 lbs</li> <li>• 205 cm symmetrical scan range</li> <li>• Automated vertical and longitudinal power drive</li> <li>• Fast longitudinal speed: 30 cm/sec</li> <li>• Slow longitudinal speed: 0.5 cm/sec</li> <li>• Integrated arm boards &amp; non-ferrous IV pole</li> <li>• IntelliTouch &amp; laser land-marking</li> <li>• Laser alignment land-marking</li> </ul> <p>SIGNA™Works is the latest software platform provided by GE, it includes the base pulse sequences, workflow enhancements and</p>	

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			<p>visualization tools to enable high productivity with exceptional quality and outcomes. SIGNA™Works, starting with the acquisitions, provides the tools needed to enable superb results in the various clinical fields. With 6 optimized Works categories, GE delivers preset protocols for the most demanding Neuro, Musculoskeletal, Cardiovascular, Body, Oncology and Paediatric areas. In addition to enabling the routine imaging, SIGNA™Works provides the user with a streamlined and efficient operating environment with in-line processing through single-click outcomes for even the most demanding processes.</p> <p>NeuroWorks includes the basic imaging acquisitions and processing along with the latest in motion correction, functional and volumetrics. Supporting both simple reconstruction and real-time perfusion results with BrainStat AIF. Including:</p> <ul style="list-style-type: none"> <li>• PROPELLER MB motion robust radial FSE now including T1 and Fat suppression (STIR and ASPIR)</li> <li>• 3D Cube FSE-based 3D imaging including Dual Inversion Recovery</li> <li>• BrainStat AIF parametric maps</li> <li>• eDWI</li> <li>• ReadyBrain automated brain exam prescription</li> <li>• 3D COSMIC modified steady state imaging</li> <li>• 3D BRAVO IR prepared fast SPGR imaging</li> <li>• PROBE PRESS single voxel spectroscopy</li> </ul> <p>OrthoWorks delivers routine imaging that is not always a given. From motion correction to advanced volumetric imaging, GE's latest MSK techniques provide you with the contrasts you need for the basic imaging to enhanced cartilage imaging. And with multiple tissue suppression methods available, OrthoWorks enables the best of what can be achieved in a standard configuration. Including:</p> <ul style="list-style-type: none"> <li>• MARS High Bandwidth for FSE</li> <li>• PROPELLER MB motion robust radial FSE now with T1 and Fat Suppression (STIR and ASPIR)</li> <li>• 3D Cube FSE</li> </ul>	

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			<ul style="list-style-type: none"> <li>• 3D COSMIC</li> </ul> <p>BodyWorks: The latest in Torso imaging is delivered with volumetric imaging supporting advanced Parallel imaging standard. Including, Snapshot imaging with optimized Single Shot FSE, 3D isotropic imaging for MRCP, Dynamic Imaging and Routine Volumetric imaging enabled with Motion Free navigation for post-contrast uses with high temporal resolution results. Motion correction is further enhanced with both the PB navigators as well as PROPELLER including T1 weighted results. Turbo class of acquisitions streamlines the speed and enables higher quality results. Advanced processing is made one-touch with the new READYView on Console capabilities. Including:</p> <ul style="list-style-type: none"> <li>• Body Navigators pencil-beam diaphragm tracker</li> <li>• PROPELLER MB for motion robust radial FSE including PB Navigator and fat suppression (STIR/ASPIR)</li> <li>• TurboLAVA with Turbo ARC</li> <li>• Enhanced SSFSE</li> <li>• Multiphase DynaPlan</li> <li>• SmartPrep</li> </ul> <p>OncoWorks delivers a complete platform for your needs in Prostate, Breast and Radiation Therapy planning. From the basic routine acquisitions to whole body imaging including volumetric and enhanced diffusion capabilities, GE enables superb linearity from the gradient platform and hardware performance. GE provides the necessary preset protocols to supply you with optimal imaging for your oncology needs that is further enhanced visualization capabilities so that your results can be a single click away. Including:</p> <ul style="list-style-type: none"> <li>• Body Navigators pencil-beam diaphragm tracker</li> <li>• PROPELLER MB for motion robust radial FSE including PB Navigator and fat suppression (STIR/ASPIR)</li> <li>• Spin Echo &amp; Fast Spin Echo Suites</li> <li>• TurboLAVA with Turbo Arc</li> <li>• eDWI</li> <li>• Whole Body Scanning tools including eDWI</li> </ul>	



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CVWorks provides GE's extensive coverage for the latest techniques enabling high performance Cardiovascular imaging outcomes. Single Breath-Hold imaging for whole heart coverage are available from Morphology to Delayed enhancement. Enabling simplified generation of superb results including head-to-toe MRA support to single acquisition Time of Flight and additional non-contrast imaging for flow. With SmartPrep and Fluoro triggering enabled for first time right contrast injections.

Vascular specific including:

- Body Navigators pencil-beam diaphragm tracker
- 2D/3D Time-Of-Flight & 2D Gated Time-of-Flight
- 2D/3D Phase Contrast & Phase Contrast Cine
- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- 3D QuickStep automated multi-station imaging

Cardiac specific including:

- 2D/PS MDE phase sensitive tissue characterization
- MDE Plus tissue characterization with optimized Fat Sat
- CINE IR fast cine gradient echo with IR-prep pulse
- StarMap T2 iron assessment
- 2D FIESTA Cine steady-state, gated multi-phase imaging
- 3D FS FIESTA steady-state coronary imaging
- Cine Paging (128 images/4 windows @ 30fps)

PaedWorks is the GE solution to address your specific needs in Paediatric imaging, from standard sequences supported with the latest in motion control for brain to toes. GE delivers standard acoustic reduction technologies and further addresses clinical needs for volumetric imaging, whole body imaging and enhanced diffusion results. The streamlined processing enables simplified one-click processing and visualization of complex results. PaedWorks covers your needs for all anatomies and provides optimized protocols and preset procedures. Including:

- PROPELLER MB motion robust radial FSE now including T1 and

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			<p>Fat suppression (STIR and ASPIR)</p> <ul style="list-style-type: none"> <li>• PROPELLER 3.0 FSE-based diffusion imaging</li> <li>• 3D Cube FSE-based 3D imaging including Dual Inversion Recovery</li> <li>• BrainSTAT AIF parametric maps</li> <li>• Body Navigators pencil-beam diaphragm tracker</li> <li>• eDWI</li> </ul>	
2	1		<p>SIGNA Architect 3.0T Magnet Collector</p> <p>The Architect is equipped with GE's most-advanced 3.0T magnet design, high-performance 44 mT/m and 200 T/m/s slew rate gradients, a spacious 70cm patient bore with bright inner-bore lighting, and MultiDrive RF transmit technology delivering performance, productivity and exceptional image quality.</p> <p>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 Architect 3.0T magnet is designed to provide years of worry-free, reliable, low-cost operation.</p> <p>In-Room Console (iROC):          By consolidating all controls into one place, the In-Room Console (iROC) provides real-time feedback to the operator to improve exam room efficiency. With a high-resolution, color LCD display located just above the Architect gantry, coil-connection, patient set-up, cardiac and respiratory waveforms make exam preparation a breeze. The iROC provides feedback on:</p> <ul style="list-style-type: none"> <li>• Display of patient name, ID, and study description.</li> <li>• Display and entry of patient weight.</li> <li>• Display and entry of patient orientation / position.</li> </ul>	

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			<ul style="list-style-type: none"> <li>• AutoStart - initiates automatic scan start.</li> <li>• Cardiac &amp; Respiratory waveform display.</li> <li>• IntelliTouch landmarking information, table position, and scan time.</li> <li>• Coil connection status.</li> </ul> <p>High Performance Whole-Body Gradients: The Architect incorporates the latest in MR gradient technology with the wide eXtreme Resonance Module (XRMw). XRMw gradients deliver 44 mT/m peak amplitude, up to 200 T/m/s instantaneous peak slew-rate on each axis, and deliver unmatched fidelity, accuracy, and reproducibility (please refer to system datasheet for additional information). They are water-cooled and equipped with integrated thermo-electric cooling panels to provide excellent stability and duty-cycle for gradient intensive applications. The XRMw gradients have been designed with excellent linearity across the 50cm FOV. Utilizing a unique acoustic barrier material, acoustic noise levels are reduced for enhanced patient comfort without compromising imaging performance.</p> <p>Architect MultiDrive RF Whole-Body RF Coil: The SIGNA Architect system comes 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.</p>	
3	1		<p>SIGNA Architect Scan Room Electronics</p> <p>The Architect Scan Room Electronics collector includes the following:</p> <ul style="list-style-type: none"> <li>• MultiDrive RF components (cabling and electronics).</li> <li>• Mechanical and electrical docking architecture that interfaces the GE Express Patient Table.</li> </ul>	

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			<ul style="list-style-type: none"> <li>• RF signal switching hardware and cabling that routes the MR signals received to the respective OpTix receivers.</li> </ul>	
4	1		<p>Preinstallation Collector and Cable Concealment Kit</p> <p>The Preinstallation Collector delivers to the site in advance of the magnet and main electronic components. This facilitates the later delivery and installation of supporting electronics. The following are the main components in the Preinstallation collector:</p> <ul style="list-style-type: none"> <li>• Heat exchange cabinet for distribution of chilled water.</li> <li>• Primary Penetration wall panel for support of the penetration cabinet.</li> <li>• Secondary Penetration wall panel for support of gradient filters, helium cables, and chilled air and water.</li> <li>• Helium cryocooler hose kit.</li> </ul> <p>The Cable Concealment Kit accommodates a wide-range of scan room ceiling heights and is designed to provide a clean-look installation by concealing the overhead cabling from view.</p>	
5	1		<p>3.0T Calibration Phantom Kit</p> <p>This 3.0T calibration kit contains a large volume shim phantom, a daily quality assurance phantom, an echo-planar calibration phantom, and associated loader shells.</p>	
6	1		<p>Vibroacoustic Dampening Kit</p> <p>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.</p>	
7	1		Architect 3.0T Cable Collector-A (Short SR/ Short ER)	

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			<p>To accommodate various electronic and scan room configurations and sizes, the system has preset lengths of cables and connector kits to speed system installation. This configuration is for sites with a relatively short distance of 7 meters between the penetration wall and the rear of the MR scanner room (SR), and approximately 9 meters between the penetration wall and cabinets in the electronics room (ER). Refer to the pre-installation manual for exact cable lengths and configurations. This cable collector is compatible with fixed and modular or relocatable building configurations.</p>	
8	1		Gradient Cable Collector - A	
9	1		<p>Main Disconnect Panel</p> <p>The Main Disconnect Panel safeguards the MR system's critical electrical components, by providing complete power distribution and emergency-off control.</p>	
10	1		Calibration Kit Phantom Holder Cart	
11	1		<p>Operator's Console Table</p> <p>Wide table designed specifically for the color LCD monitor and keyboard.</p>	
12	1		<p>English Keyboard</p> <p>Required for our operator console. This keyboard is ergonomically designed to keep your staff comfortable even through the longest shifts. The scan control keyboard assembly has an intercom speaker, microphone, volume controls and emergency stop switch.</p>	
13	1		<p>Standard Service License</p> <p>GE Healthcare has reclassified its service tools, diagnostics and documentation into various classes (please refer to the Service Licensing Notification statement at the beginning of this Quotation). The Standard License provides access to service tools used to perform basic level service on the Equipment and is included at no charge for the warranty period.</p>	

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14	1		<p>MAGiCWorks 3.0T</p> <ul style="list-style-type: none"> <li>• MAGiC 3.0T</li> <li>• MAGiC DWI</li> </ul> <p>MAGiC enables one-and-done imaging capability by delivering six different contrasts in a single scan. MAGiC utilizes a multi-delay multi-echo acquisition. The data acquired is processed using a novel technique to generate T1, T2, T1FLAIR, T2FLAIR, PD, and STIR weighted images, all at once in as little as one-third the time taken to acquire all six contrasts using separate sequences. MAGiC generates all the different contrasts from the same scan, and the images have perfect registration due to no change in the anatomy being imaged from patient movement between scans. MAGiC expands the potential to acquire more advanced sequences such as spectroscopy, susceptibility weighted imaging (each sold separately) etc., in the time it took to perform just the routine exam.</p> <p>MAGiC gives the user the ability to change the contrast of images after the acquisition. This is performed by adjusting the TR, TE, and/or TI parameters post-acquisition to generate the specific contrast desired. The range of contrasts that can be generated include IR REAL, PSIR in addition to the aforementioned six contrasts. MAGiC also enables users to generate quantitative T1, T2, R1, R2, and PD maps for further analysis of MRI scan data.</p> <p>MAGiC Diffusion provides the ability to acquire lower b-value diffusion data and extrapolate to higher b-value results leading to inherent high signal to noise gains in addition to scan time reduction through the computed b-value principle.</p>	
15	1		<p>NeuroWorks XT Package</p> <ul style="list-style-type: none"> <li>• DTI</li> <li>• FiberTrak</li> <li>• SWAN 2.0</li> <li>• IDEAL &amp; Flex</li> <li>• Flex for FSE Cube</li> </ul>	

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• FOCUS

Diffusion Tensor imaging (DTI) creates contrast based on the degree of diffusion anisotropy in cerebral tissues such as white matter. The DTI method expands Echo planar imaging capability to include diffusion imaging sequence using motion sensing gradient pulses along 6 to 155 orientations in order to generate tensor component images. With the Express Workflow, fractional anisotropy (FA) and Volume Ratio Anisotropy (VRA) maps may be automatically created after image acquisition without any user intervention.

FiberTrak: White matter tracts and tissues with high fractional anisotropy are easily displayed and visualized in the 3D Volume Viewer with FiberTrak. This host computer post processing tool expands the capability of Diffusion Tensor imaging by generation of 2D color orientation maps, 2D eigenvector maps, and 3D tractography maps from the diffusion tensor image data. The resulting datasets may be easily saved and archived for later use.

SWAN (also known as SWAN 2.0 for DV platforms) is a high-resolution 3D multi-echo gradient echo sequence that produces weighted averaging across images with different TEs to achieve higher susceptibility weighting. It provides minimum intensity projections over neighboring slices, enhancing contrast for certain tissues containing iron, venous blood, and other substances with susceptibilities that are different than the background tissues. SWAN 2.0 (DV platforms only), outputs an unwrapped phase image leading to increased delineation between calcium products and paramagnetic products (such as blood or iron) to further increase the clinical value of susceptibility imaging. Due to the nature of the weighted averaging of the multi-echo sequence, the SNR of SWAN is higher than that of a single-echo acquisition. SWAN 2.0 helps visualize and delineate small vessels, as well as large vascular structures and iron or calcium deposits in the brain.

IDEAL and Flex: Generate consistent tissue contrast and reduce

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			<p>the number of series in an exam with DEAL. The IDEAL acquisition and reconstruction methods can generate a water-only, fat-only, in-phase and out-of-phase data sets for clear tissue differentiation in a single series. In addition, susceptibility artifacts common to MR imaging such as incomplete or inaccurate fat saturation, and chemical shift can be eliminated as well. The IDEAL application acquires multiple echoes and uses unique reconstruction routines to generate the four image contrasts and correct for errors due to tissue susceptibility.</p> <p>IDEAL is ideally suited for imaging anatomical regions such as the brachial plexus, neck, spine, chest, foot, ankle, and axilla where inhomogeneous magnetic fields may yield failures with traditional fat saturation techniques. IDEAL is compatible with Fast Spin Echo, 3D Gradient Echo and parallel imaging.</p> <p>For fast T1w multi-phase imaging of the abdomen and pelvis, LAVA Flex acquisition uses 2D ARC parallel imaging to reduce artifacts from breath hold misregistration and incorrect FOV placement while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. LAVA Flex requires LAVA which is included in.</p> <p>For fast T1w multi-phase imaging of the breast, VIBRANT Flex acquisition uses 2D ARC parallel imaging to enable higher acceleration factors over ASSET parallel imaging, and reduce artifacts from breath hold misregistration and eliminates artifacts due to incorrect FOV placement, while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. VIBRANT Flex requires VIBRANT, which must be purchased separately.</p> <p>The IDEAL method is compatible with ASSET and ARC parallel imaging and is optimized based on the anatomy of interest.</p> <p>FSE and Cube Flex delivers enhanced fat nulled imaging with an efficient two echo flex approach to separate water and fat signals. Outputting 4 images/slice: Fat, Water, In and Opposed phase.</p>	



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			<p>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.</p>	
16	1		<p>Spectro Package</p> <ul style="list-style-type: none"> <li>• PROBE PRESS &amp; STEAM</li> <li>• 2D CSI</li> <li>• 3D CSI</li> </ul> <p>PROBE-PRESS and STEAM Single-Voxel Spectroscopy allows you to non-invasively evaluate the relative concentrations of invivo metabolites. It lets you acquire and display volume localized, water-suppressed 1H spectra in single-voxel mode. This package includes PROBE P (PRESS) and PROBE-S (STEAM) pulse sequences, as well as automated reconstruction, acquisition set-up and graphic prescription of spectroscopic volumes.</p> <p>PROBE 2D CSI expands proton brain spectroscopy capability enabling simultaneous acquisition of multiple in-plane voxels. PROBE 2D CSI uses the PRESS pulse sequence to acquire and display volume-localized, water suppressed 1H spectra in a multi-voxel mode for the non-invasive assessment of invivo metabolites. Metabolite maps are automatically generated in FuncTool on the operator console.</p> <p>PROBE 3D CSI extends your PROBE-P 2D CSI spectroscopic capabilities by allowing you to perform 3-dimensional multi-voxel acquisitions. Post-processing, including the creation of metabolite maps, is automatically generated.</p>	
17	1		<p>CardioWorks XT Package</p>	

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			<ul style="list-style-type: none"> <li>• 3D Heart</li> <li>• Time Course</li> <li>• Tagging</li> <li>• FOCUS</li> </ul> <p>3D Heart is a 3D Fat Sat FIESTA sequence (Optimized for 1.5T) or 3D IRPrep FGRE sequence (Optimized for 3T) that provides whole-heart coverage for coronary artery imaging or cardiac chamber imaging. It employs a T2 preparation pulse at 1.5T to provide myocardial suppression for better coronary visualization. A multi-slab localizer allows easy whole-heart prescription, and increase inflow effect for high vessel conspicuity. A navigator echo pulse that detects motion of the diaphragm is utilized to enable free breathing acquisition. The navigator has been optimized to improve robustness, and employs prospective real-time motion correction to improve motion suppression and increase scan efficiency. The multi-slab acquisition minimizes the effect of respiratory drift and heart rate variability on image quality. An optimized phase ordering and steady state preparation has also been used to improve CNR and SNR.</p> <p>As this sequence supports 3D IRPrep FGRE acquisition mode on both 1.5T &amp; 3T, it can also be used for 3D MDE acquisition. With the purchase of 3D Heart, 3 additional options (3D MDE, Cine IR and Cardiac Navigator) would be included.</p> <p>Cine IR is a conventional ECG-gated, gradient recalled echo FASTCARD or FASTCINE acquisition sequence with an inversion recovery (IR) preparation. A single adiabatic inversion pulse is generated upon detection of the cardiac R-wave to trigger the multi-phase readout. Each image (i.e., cardiac phase) is at a progressively longer TI time; up to 30 TI times can be captured. Cine IR can be used to approximate the myocardial null point for a subsequent delayed enhancement (MDE) study for myocardial viability.</p> <p>FGRE Time Course: Fast Gradient Recalled Echo Time Course is a Fast Gradient-echo time-course imaging sequence that utilize single-echo acquisition to reduce sensitivity to echo</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>mis-alignment or system calibration variations, resulting in robust image quality with ghosting and artifact reduction. ASSET parallel imaging and shortened RF pulse design are incorporated to improve temporal resolution and reduce motion related artifacts. In addition to selective notch pulse, it also supports non-selective saturation pulse for excellent background suppression and multi-plane imaging capability.</p> <p>With Cardiac Tagging, an even distribution of spatial saturation lines are applied across the myocardium in the FastCINE Gradient Echo pulse sequence to enable cardiac wall motion assessment. Cardiac Tagging allows the application of 1D diagonal stripes or 2D grid saturation pulses once per R-R interval immediately following the R-wave trigger. Resulting images demonstrate motion (or lack of motion) effects.</p> <p>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.</p>	
18	1		<p>VascularWorks XT Package</p> <ul style="list-style-type: none"> <li>• TRICKS</li> <li>• Inhance Suite</li> </ul> <p>TRICKS (Time Resolved Imaging of Contrast KineticS) provides high resolution multi-phase 3D volumes of any anatomy for fast accurate visualization of the vasculature. With segmented complex data recombination, TRICKS can accelerate 3D dynamic vascular imaging without compromising spatial detail.</p> <p>TRICKS also uses elliptic centric data collection for optimized</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>contrast resolution and auto-subtraction for optimized background suppression. The result is time course imaging that does not require timing or triggering, provides high temporal and high spatial resolution, and enables the extraction of optimum phases of data. As a result, TRICKS enables reliable, high quality vascular imaging. TRICKS is compatible with surface coils and supports parallel imaging for even higher temporal resolution.</p> <p>The Inhance Suite application consists of several sequences designed to provide high-resolution images of the vasculature with short-acquisition times and excellent vessel detail. These sequences include: Inhance Inflow IR: Inhance Inflow IR is an angiographic method, which has been developed to image renal arteries with ability to suppress static background tissue and venous flow. This sequence is based on 3D FIESTA, which improves SNR, as well as produce bright blood images.</p> <p>Inhance 3D Velocity: Inhance 3D Velocity is designed to acquire angiography images in brain and renal arteries with excellent background suppression in a short scan time. By combining a volumetric 3D phase contrast acquisition with parallel imaging, efficient k-space traversal, and pulse sequence optimization, Inhance 3D Velocity is capable of obtaining complete Neurovascular imaging in 5-6 minutes.</p> <p>Inhance 3D Deltaflow is a 3D non-contrast enhanced MRA application for peripheral arterial imaging. Inhance 3D Deltaflow is based on the 3D Fast Spin Echo technique and it utilizes the systolic and diastolic flow differences to help generate arterial signal contrast. A subtraction of the systolic phase from the diastolic phase images results in arterial only images, with venous and background suppression.</p> <p>Inhance 2D Inflow: The Inhance 2D Inflow pulse sequence is designed to acquire angiography images of arteries, which follow almost a straight path, i.e. femoral, popliteal, carotid arteries, etc.</p>	
19	1		<p>Breast Package 3.0T</p> <ul style="list-style-type: none"> <li>• VIBRANT</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"> <li>• IDEAL &amp; Flex</li> <li>• 3.0T 8-ch Breast Array</li> </ul> <p>VIBRANT (Volume Imaged BREast Assessment) is a fast, high resolution T1 weighted imaging sequence and application optimized for evaluation of breast tissue. VIBRANT uses GE exclusive technology and parallel imaging acceleration to quickly acquire multi-phase data without compromising spatial resolution. This 3D gradient echo technique, optimized for sagittal or axial acquisitions, uses an optimized inversion pulse and dual-shimming technology that yields enhanced image contrast and robust, uniform, bilateral fat suppression. Auto subtraction of the first dataset is also available to further background suppression. For enhanced speed, VIBRANT is compatible with both ASSET and ARC parallel imaging with acceleration factors up to four. As a result, VIBRANT enables reliable, high quality breast imaging.</p> <p>For improved tissue contrast, VIBRANT is compatible with Flex imaging. VIBRANT Flex acquisition will provide a water-only, fat-only, in-phase and out of phase data sets in a single acquisition and produce images with significantly reduced chemical shift and susceptibility artifacts. This is critical for evaluation of the axilla and chest wall.</p> <p>IDEAL and Flex: Generate consistent tissue contrast and reduce the number of series in an exam with DEAL. The IDEAL acquisition and reconstruction methods can generate a water-only, fat-only, in-phase and out-of-phase data sets for clear tissue differentiation in a single series. In addition, susceptibility artifacts common to MR imaging such as incomplete or inaccurate fat saturation, and chemical shift can be eliminated as well. The IDEAL application acquires multiple echoes and uses unique reconstruction routines to generate the four image contrasts and correct for errors due to tissue susceptibility.</p> <p>IDEAL is ideally suited for imaging anatomical regions such as the brachial plexus, neck, spine, chest, foot, ankle, and axilla where inhomogeneous magnetic fields may yield failures with</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>traditional fat saturation techniques. IDEAL is compatible with Fast Spin Echo, 3D Gradient Echo and parallel imaging.</p> <p>For fast T1w multi-phase imaging of the abdomen and pelvis, LAVA Flex acquisition uses 2D ARC parallel imaging to reduce artifacts from breath hold misregistration and incorrect FOV placement while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. LAVA Flex requires LAVA which is included in.</p> <p>For fast T1w multi-phase imaging of the breast, VIBRANT Flex acquisition uses 2D ARC parallel imaging to enable higher acceleration factors over ASSET parallel imaging, and reduce artifacts from breath hold misregistration and eliminates artifacts due to incorrect FOV placement, while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. VIBRANT Flex requires VIBRANT, which must be purchased separately.</p> <p>The IDEAL method is compatible with ASSET and ARC parallel imaging and is optimized based on the anatomy of interest.</p> <p>The Breast Array generates high-definition MR breast images on 3.0T MR systems. Optimized for use with ASSET and VIBRANT for up to 3X acceleration, this 8-element phased-array coil helps ensure excellent temporal and spatial resolution, patient after patient. The array is also compatible with Fast Spin Echo, Fast Gradient Echo, and Diffusion Imaging sequences. It provides uncompromised lateral and medial access. This collector contains a set of MR compatible biopsy grids that are compatible with this coil.</p>	
20	1		<p>3.0T MR-Touch</p> <p>MR-Touch is a non-invasive method to measure relative tissue stiffness with MR. It is an acquisition and reconstruction technique that combines hardware, and acquisition and reconstruction algorithms to produce Elastograms, color-coded anatomical images showing varying degrees of elasticity or stiffness. The image contrast is related to relative stiffness of soft</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>tissue and is generated from the real-time data acquisition during tissue palpation with low amplitude and low frequency sound waves. The hardware component is comprised of an active sound wave generator and a passive transducer that produces small vibrations in the area of the patient to be scanned. The MR-Touch acquisition software incorporates a spin-echo EPI phase contrast sequence making it less sensitive to susceptibility-induced signal loss. The acquisition software also triggers the sound wave generator to produce synchronized vibrations on the surface of the patient during the data acquisition. The reconstruction algorithms generate images that show the propagation of sound waves through the tissue (phase images) and also the corresponding strain wave and relative stiffness images. Parallel imaging is used to accelerate image acquisition and provide for whole liver coverage in a few breath holds.</p>	
21	1		<p>3D PROMO</p> <p>3D PROMO provides a real time 3D navigator based motion correction algorithm correcting for the six rigid body terms where re-acquisition of severely corrupted data provides robust, high quality, motion free, 3D outcomes. 3D PROMO is compatible with both T2 and T2 FLAIR Cube acquisitions.</p>	
22	1		<p>MAVRIC SL</p> <p>MAVRIC SL is an advanced magnetic resonance imaging technique for imaging soft tissue and bone near MR conditional metallic devices. MAVRIC SL is designed to greatly reduce susceptibility artifacts, compared to conventional fast spin echo techniques, and is suitable for use on all patients cleared for MR exams.</p>	
23	1		<p>3.0T Silent Suite - Silent Neuro Exam Package - Forward Production</p> <p>The Silent Suite Package includes a complete set of sequences designed to generate high-resolution images which deliver T1, T2, FLAIR, and PD weighted contrasts. The Silenz imaging sequence delivers 3D isotropic images with T1 or PD contrast with sound levels that are within 3dB of the ambient conditions.</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>Newly enhanced gradient waveforms have been employed to minimize the acoustic signature of FSE, 3D Cube, and PROPELLER-based acquisitions to generate T2 and T2 FLAIR weighted images. In addition, the localizer, Prescan, and calibration sequences have been optimized as well to deliver a complete neuro exam at nearly silent levels.</p>	
24	1		<p>3.0T Silent MRA</p> <p>Silent MRA is a 3D acquisition with an Arterial Labeling pre-pulse to deliver the angiographic contrast. The sequence is based on the Silenz imaging sequence which delivers 3D isotropic images at sound levels that are within 3dB of ambient noise.</p>	
25	1		<p>Flow Analysis 4.0</p> <p>Flow Analysis automates the review and analysis of gated phase contrast magnetic resonance (MR) images and generates a report for the referring physician. This version is available on the host computer.</p> <p>Flow Analysis has an automated edge detection algorithm that propagates through all the phases of the cine phase contrast series.</p> <p>The flow analysis measurement tab displays a summary chart of peak velocities in addition to individual velocity results from each phase of the cardiac cycle. A background correction may also be applied which is particularly suited to slow flowing fluid such as cerebrospinal fluid.</p> <p>Customizable Macros are a feature of Flow Analysis 4.0. These Marcos allow the user to quickly write a report specific to the patient being assessed with simple mouse clicks. The macros are customizable to reflect the language used by the reporting physician.</p> <p>Flow Analysis offers the capability to archive reports or cine images as seen in a DICOM format so they may be viewed on any DICOM viewer.</p>	
26	1		<p>CardioMap</p> <p>T1 and T2 cardiac mapping delivers parametric maps with</p>	



Item No.	Qty	Catalog No.	Description	Ext Sell Price
			integrated motion correction for T1 mapping of the myocardium.	
27	1		<p>HyperSense</p> <p>HyperSense provides a scan time reduction technique while maintaining SNR through an innovative data compression algorithm for 3D based Cube and ToF sequences.</p>	
28	1		<p>HyperCube</p> <p>HyperCube delivers reduced field of view imaging for 3D Cube acquisitions by selectively acquiring/reconstructing fewer k-space lines which leads to scan time reduction and artifact control through a selective excitation approach.</p>	
29	1		<p>GE Discovery MR450 and Discovery MR750 Heat Exchangers - 70kW (30 Tons)</p> <p>Cooling for your GE Healthcare MR system has never been so easy. GE Healthcare has partnered with the Glen Dimplex Group, a world leader in cooling systems, to offer heat exchangers designed to meet the needs of your Discovery MR System. Now you can look to GE Healthcare for your entire MR purchase and support.</p> <p>This heat exchanger is highly reliable and the only unit verified to perform with the new platform of GE Healthcare MR systems. As part of your integrated GE Healthcare solution, you'll work with a single contact throughout the whole installation. A Project Manager of Installation will help with building layout, room designs, delivery and installation - every step until your system is ready to scan. Our team will work seamlessly with architects, contractors and your internal team to help ensure timely, cost-effective completion.</p> <p>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.</p> <p>FEATURES AND BENEFITS</p> <ul style="list-style-type: none"> <li>• Designed to provide stable fully dedicated cooling for your MR system's needs</li> <li>• Water/glycol outdoor-air-cooled heat exchangers to</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
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support your highest exam volumes and your full range of diagnostic procedures

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

#### SPECIFICATIONS

- Net Cooling Capacity: 70 kW / 30 Ton
- Maximum Coolant Flow: 35 gpm (132 l/m)
- Coolant Outlet Temperature: 48 OF (8.9 OC)
- Coolant Temp Stability: 1 1.80F ( 11.00C)
- Max Coolant Pressure : 70 Psi (4.8 Bar)
- Refrigerant: R407C

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"> <li>Ambient Temp Range: -20 to 1200F (-30 to 500C)</li> <li>Condenser Air Flow (Approx): 18,000 Cfm</li> <li>Tank Capacity: 100 gal (378 l)</li> <li>Flow Meter Range: 4-40 gpm</li> <li>Filters: 50 micron cartridge filters</li> <li>Supply Voltage: 460v / 3 phase / 60 Hz</li> <li>Coolant Connections: 2" NPTF</li> <li>Overall Size (L x W x H) 44" x 136" x 84.5"</li> </ul> <p>COMPATIBILITY:</p> <ul style="list-style-type: none"> <li>GE Discovery MR450 1.5T MR system</li> <li>GE Discovery MR750 3.0T MR system</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>Item is NON-RETURNABLE and NON-REFUNDABLE</li> </ul>	
30	1		<p>GE MR Heat Exchanger Manual Cryogen Compressor Water Bypass Option</p> <p>Add a level of magnet protection with a Manual Cryogen Compressor Bypass. In case of a power failure, you can cycle municipal or facility water through the cryogen compresor and reduce cryogen loss and reduce the likelihood of quenching.</p> <p>FEATURES AND BENEFITS</p> <ul style="list-style-type: none"> <li>Easy to install and simple to use</li> <li>Helps switch over water supply to your cryogen compressor in the event of loss of power to reduce cryogen loss</li> <li>Includes fluid supply pressure gauge, temperature gauge and flow rate meter for easy verification of operation</li> <li>Manual operation reduces unintentional switch-overs and coolant dumping during brown-outs and supply power glitches</li> </ul> <p>COMPATIBILITY</p> <p>Must be used with a GE MR Heat Exchanger:</p> <ul style="list-style-type: none"> <li>E8911CA</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"> <li>• E8911CB</li> <li>• E8911CC</li> <li>• E8911CD</li> <li>• E8912CA</li> <li>• E8912CB</li> <li>• E8912CC</li> <li>• E8912CD</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>• Item is NON-RETURNABLE and NON-REFUNDABLE</li> </ul>	
31	1		<p>MR 3T &amp; 1.5T Advanced Training Package (New to MR or Advanced)</p> <p>Advanced training package includes HQ, onsite, and remote training options</p> <p>Training package includes up to 34 training days that includes 2 HQ classes, Phase 1 &amp; 2 onsite training for 16 days, 32 TVA hours, 40 VOT training hours, online and remote training. Program concludes one year after the initial start date. Instruction is provided from 8 AM to 5 PM, Monday through Friday and includes T&amp;L expenses.</p>	
	1		<b>MR Accessories - SIGNA Architect 3.0T</b>	
32	1		<p>MRI Audio 1505 Complete music system for Premium MRI systems.</p> <p>The MRI Audio premium sound system 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.</p> <p>Package includes:</p> <ul style="list-style-type: none"> <li>• Digital amplifier</li> <li>• iPad Mini</li> <li>• iPad Mini mount with lock</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<ul style="list-style-type: none"> <li>• 3G transducer</li> <li>• In-ear headphones, 29dB noise reduction</li> <li>• Disposable ear tips (300 pairs)</li> <li>• Technologist's speakers</li> <li>• 6 ft RCA 3.5 mm cable</li> <li>• Auto-voice/MIC adapter</li> </ul>	
33	1		<p>GE Digital Energy 5000 Series 150 KVA - X-Ray, MR450, MR750 Systems</p> <p>The GE Digital Energy SG Series is one of the best performing and most reliable three-phase UPS systems providing critical power protection for medical imaging systems. The SG Series UPS was developed using GE's Design for Six Sigma methodology ensuring that the product fully meets customer requirements and expectations. It produces extremely low output voltage distortion during step loads from 0-100% thus making it ideal for diagnostic imaging systems. Its superior performance enables GE to correctly size the UPS for the application resulting in significant savings in initial and life cycle costs compared to other systems.</p> <p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> <li>o The use of uninterruptible power enables the system imaging to be completed after the loss of supply power, and allows for saving of valuable data and orderly system shutdown</li> <li>o This 3 Phase, Online Double Conversion UPS eliminates all power anomalies such as noise, transients, over-voltage, and under-voltage, which could damage the imaging system's</li> </ul>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>sensitive computer components</p> <ul style="list-style-type: none"> <li>o Improves imaging system reliability, reduces service costs, and increases system uptime</li> <li>o Superior UPS technologies include: <ul style="list-style-type: none"> <li>- Superior dynamic load handling capability offers you a cost-effective solution with reduced lifecycle costs and a reduced footprint</li> <li>- Extremely low output voltage distortion reduces the need for over-sizing the UPS (up to 14% smaller footprint)</li> <li>- Space vector modulation resulting in faster response and higher efficiency</li> <li>- Output isolation transformer separates the utility power from the load providing greater critical power protection</li> <li>- Superior battery management enhances the life of the battery and reduces operational costs</li> <li>- Input 5th harmonic filter reduces the input distortion to less than 7%.</li> </ul> </li> <li>o Recommended with 150 KVA Bypass Panel (E4504CH), sold separately</li> </ul> <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>o Dimensions (H x W): 71" x 47.25"</li> <li>o Weight: 2161 lbs.</li> <li>o Voltage: 480VAC, 3 phase, 4 wire + ground</li> <li>o Frequency: 60 Hz</li> </ul> <p>COMPATIBILITY</p> <ul style="list-style-type: none"> <li>o X-Ray Systems, Cath Lab, MR450 1.5T and MR750 3.0T</li> </ul> <p>NOTES:</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>o Customer is responsible for rigging and arranging for installation with a certified electrician</p> <p>o ITEM IS NON-RETURNABLE AND NON-REFUNDABLE</p>	
34	1		<p>150 kVA UPS Bypass Panel (Use With E4502FD/ E4505MB)</p> <p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> <li>• The 150 kVA UPS Bypass Panel feeds power to the GE Digital Energy 150 kVA UPS in the normal mode and enables an imaging system to operate when the UPS is in the manual bypass mode for routine servicing of the UPS or in the event of UPS failure</li> <li>• The UPS input and output breakers provide branch overcurrent protection, a disconnection means and OSHA lockout/tagout provisions</li> <li>• The bypass breaker includes a control contact which interfaces with the UPS to switch into static bypass</li> <li>• Each circuit breaker is permanently identified by function for ease of operation</li> <li>• Reduces installation time and cost by providing a pre-designed and tested system eliminating the need to mount and wire a number of individual components</li> <li>• Standardized design and testing assures high product quality and system reliability</li> </ul> <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>• Dimensions (H x W x D): 65.87" x 31" x 11.5"</li> <li>• Weight: 350 lbs.</li> <li>• Mounting: Four 0.5" square mounting holes provided</li> </ul> <p>COMPATIBILITY</p> <ul style="list-style-type: none"> <li>• Use with GE Digital Energy 150 kVA UPS (E4502FD)</li> </ul>	
35	1		<p>Physician's Chair with Padded Arms</p> <p>Physician's chair has padded arms for comfort and comes in a charcoal gray color that blends</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			with any environment. Chair adjusts from 16.75 in. to 21 in. (42.5 cm x 53.3cm) and is only for use in the MR Control Room. Weighs 45 lbs.	
36	1		MR Coil Cart FEATURES/BENEFITS <ul style="list-style-type: none"><li>• Holds CTL, NV, brain, extremity, body and shoulder coils</li><li>• Designed to match the scanner, holds 6 coils</li><li>• Four swiveling, locking casters for easy movement</li></ul> SPECIFICATIONS <ul style="list-style-type: none"><li>• Measures 44" L x 32" W x 48.75" H</li><li>• Weighs 130 lbs.</li></ul>	
	1		<b>NonProducts</b>	
37	1		MR Magnet Rigging	
	1		<b>NonProducts</b>	
38	1		PDC MR Caring Suite Electronics	



## Options

Item No.	Qty	Description	Ext Sell Price
39	1	<p>3D ASL (Arterial Spin Labeling)</p> <p>3D ASL utilizes water in arterial blood as an endogenous contrast media to help visualize tissue perfusion and provide quantitative assessment of cerebral blood flow (CBF) in ml/100 g/min. The quantitative CBF maps can be generated and stored in DICOM format.</p> <p>3D ASL deploys stacked spiral FSE readout with modulated flip angle to acquire 3D data with increased SNR and less image distortion compared to conventional 2D EPI-based ASL techniques. A pulsed-continuous labeling is applied to label arterial blood close to the imaging volume thus improving conspicuity of flowing blood. Selective, interwoven pulses are then used to saturate and invert the imaging volume, in order to achieve better background suppression, and reduce sensitivity to motion. The isotropic 3D volume data can be reformatted to axial, sagittal, coronal or oblique planes.</p> <p>3D ASL helps generate robust, reproducible images and perfusion maps with high SNR, reduced motion artifacts and less distortion in high magnetic susceptibility regions.</p>	
40	1	<p>HyperBand</p> <p>HyperBand reduces scan time by delivering multiple slices for single shot EPI/Diffusion in one go up to reduction factors of 6x.</p>	
41	1	<p>Expression Patient Monitor (MR400): 15 inch Widescreen Touchscreen interface, MRI Rating 5,000 gauss 4W/kg SAR 3.0T, 8-Hour Smart Battery Technology, 3rd-Gen Wireless ECG with Advanced</p>	

Item No.	Qty	Catalog No.	Description	Ext Sell Price
			<p>Filters, 3rd-Gen Wireless Pulse Oximetry (SpO2) with Perfusion Index, Single-Lumen Non-Invasive Blood Pressure (NIBP), CO2 monitoring with Respiration Rate, Wired and wireless gating with MRI systems, and Multi-priority alarm system with CDS.</p> <p>All parameters support Adult, Pediatric, Infant and Neonatal applications. One (1) day on-site Expression system training, One (1) year limited warranty and factory service for hardware.</p> <p>Feature set includes non-invasive blood pressure, wireless ECG, wireless SpO2, low-flow CO2, respiration monitoring, dual anesthetic agent detection, O2 monitoring, invasive blood pressure (2 channel). Includes all standard accessories: hardware accessories, and reusable and disposable accessories for 20 Adult and Pediatric patients.</p>	
42	1		<p>Expression Information Portal is a non-MRI remote display and controller for wireless Philips and Invivo MRI Patient Monitoring systems. It can be used from the control room, induction, or recovery areas, for providing clinicians an enhanced monitoring, case management and connectivity experience.</p> <p>Key Features and Benefits:</p> <p>Wireless communication with MRI Patient Monitoring Systems, Advance software design, with Adobe® AIR® for a rich, robust, touch user interface experience, Case Management for clinical ease of use and efficiency, Ultimate MRI Patient Monitor connectivity experience for electronic patient-record keeping, including HL7 data output.</p> <p>The Expression IP5 consists of the following components: Touch-screen display, Radio module, control room flex antenna, and line cord.</p>	