Qty	Description
1	Optima NM/CT 640 Excel Nuclear Imaging Integrated with an Xeleris 3.1 Workstation

Optima NM/CT 640 Excel Nuclear Imaging Integrated with an Xeleris 3.1 Workstation

The Optima NM/CT 640 Excel is a premium, all purpose, high performance, hybrid SPECT/CT imaging system.lt combines an integrated nuclear imaging sub-system featuring a dual-detector free-geometry slim gantry, advanced all-digital Elite NXT detectors with 3/8" detectors , cantilevered patient table and powerful acquisition station,with a dedicated low-dose high resolution CT imaging sub-system designed for attenuation correction of SPECT and anatomic localization of radiotracer uptake in the body.

The two Elite NXT detectors are designed for all-purpose nuclear imaging with excellent image quality originating from two highly stable, slim,large rectangular field-of-view digital detectors,featuring five corrections performed on each detected event in real time, even at high count rates. The key features include:

o 3/F19.5 mm) Nal crystal thickness

o 59 high quantum efficiency circular PMTs, each coupled with one analog to digital converter (ADC)

o Extra Large Rectangular UFOV with no cut-off corners: 21.25" x 15.75" (54 x 40 cm)

o Shielded energy range: 40 - 620 keV

o Contoured detector housing for optimal cardiac and brain SPECT imaging

The Optima NM/CT 640 Excel features an integrated low-dose, 4 slice CT sub-system designed for attenuation correction and localization with the following key features:

o GE CT tube (GE MX135CT)

o GE Gedi 42 AC Generator

o Clinical operational tube current of 10-30 mA and maximum generator power of 4.2 kW

o 120 kVp or 140 kVp

o 2.0 MHU tube anode heat storage capacity

o Scan times of 1 or 2 seconds per rotation

o 2.5mm slice thickness on each of the 4 slices

o Ceramic detector made of Gadolinium OxySulfide (Gd2O2S)

o Pitch factors of 0.75:1, 1.25:1 and 1.75:1

Optima NM/CT 640 Excel features a wide 70 cm bore and slim gantry with free-geometry, enabling cardiac SPECT (90 degrees), general SPECT (180 degrees), whole body and planar imaging in various geometries to facilitate imaging a wide patient population.

Qty	Description

The gantry design includes several features designs for maximum clinical versatility and enhanced operational flexibility:

o Externally mounted detectors for ease of positioning in all major clinical studies, including those for stretcher, standing and seated patients

o Simultaneous rapid gantry orientation transitions between procedures

o Upright and horizontal detector orientations

o Real-time, infrared-based Automatic Body Contouring (ABC) for enhanced scanning efficiency and resolution

o User-definable, pre-programmed, home positions for the gantry orientation and patient table set up

o Gantry display unit with real-time status display and an intuitive, icon-based 20-function handset-accessible from either side of the gantry

o Fast, semi-automatic dual collimator exchange

The Optima NM/CT 640 Excel utilizes an ergonomic, dual-axis patient table, with a cantilevered telescoping design to be used for planar, whole body and SPECT applications. The low-attenuation carbon fiber table top supports a maximum patient weight of 227 kg (500 lb.) and has a maximum scan range of 200 cm (79"). A minimum table height of 59 cm (23.2") facilitates patient loading and unloading from a wheelchair or stretcher.

Other key patient table features include:

o Automated positioning via protocol selection

   • Easy swivel of table away from gantry to enable collimator changes and facilitate imaging of patients who are seated or on hospital bed/stretcher

o Included patient bed mattress with straps

o Manual emergency patient egress

o Optional table accessories including a head holder, table extender, arm support, leg support and additional table pads/straps

The Optima NM/CT 640 Excel hybrid SPECT/CT acquisition station is based on a Linux operating system with an Xeleris look-and-feel graphical user interface. The acquisition station performs exam scheduling, protocol editing, NM and CT scan acquisition, QC acquisition, CT reconstruction along with routing analysis, and networking.

Acquisition Station Hardware Features:

o High performance Intel based HP Z400computer

Qty	Description

o Intel Processor - 2.5Ghz

o 4GBRAM(2x 2GB)

o 160 GB hard drive

o Flat panel display (LCD) operating at 1280 x 1024 in true color

Operation is via an interactive, GE common Graphical user interface with the following software features:

o Simultaneous acquisition and energy spectrum histogram (PHA) display with up to 64 independen windows per detector for multi-isotope/ multi-peak scanning versatility

o Acquisition termination by preset time, preset count or manual stop and the ability to resume paused acquisitions for whole body, SPECT, and gated SPECT

o Pre-defined or user-configurable protocols for rapid recall and setup

o Universal imaging system connectivity via DICOM 3.0 (per DICOM conformance statement) and Interfile 3.3 TCP/IP based protocols

o HIS/RIS integrated workflow including DICOM Modality Work List

o Ability to connect to broadband/high speed network. This virtual private network (VPN) connection to GE is a single point of access using 3DES encryption for faster data transfer with increased system uptime and productivity.

o Data acquisitions may be performed using single or multiple isotopes in any of the following imaging modes: Static, Dynamic, Multi-Gated, Whole Body Scanning, SPECT and Gated SPECT

Xeleris 3.1 Workstation

Included in the integrated system is the Xeleris 3.1 functional imaging workstation for Nuclear Medicine, PET, NM/CT and PET/CT processing, analysis, and review system. Designed with productivity in mind, it can accelerate workflow and provides a powerful clinical diagnostic tool to the medical imaging community. Combining streamlined workflow with a comprehensive clinical library and extensive networking capabilities on a functional imaging workstation, Xeleris 3.1 is at the nucleus of productivity in the clinical imaging department. Utilizing the GE Healthcare-wide graphical user interface, Xeleris 3.1 is the processing and review platform of the Discovery*, Optima* and Brivo* NM and NM/CT series, Infinia* Hawkeye* 4, Ventri, Discovery PET/CT 600 series, and all other molecular imaging cameras in GE Healthcare's current offering. Xeleris 3.1 provides the automated processing and connectivity necessary in today's demanding environment.

Included is X2 MO Motion DC

MDC - Motion Detection and Correction

Qty	Description
	Automated cardiac and general purpose SPECT motion correction integrated into Xeleris applications.
	Detect and correct automatically for motion in the X and/or Y-axis, with dual head, image masking and gradient mode selectable options for improved accuracy. QA tools include: Cine of original and corrected projection data with
	reference lines; Side by side original and corrected Sinograms and Selective Linograms; Graphs of X-Shifts and Y-Shifts (in pixels) and Integrated into Myovation Cardiac Suite and other general purpose SPECT reconstruction packages.
	o 23" widescreen flat panel display
	o Keyboard and mouse
1	Discovery NM LEHR Collimators with Cart
	D670 Low Energy High Resolution Collimators Includes: o Two LEHR Collimators o Collimators Mounted on a Dedicated Collimator Cart
1	Discovery NM MEGP Collimators with Cart
	D670 Medium Energy General Purpose Collimators
	Includes: o Two MEGP Collimators
	o Collimators Mounted on a Dedicated Collimator Cart
1	A set of 1 pinhole collimator with 3 inserts with collimator cart for Discovery NM 670
1	An L-shaped metal plate attachable to the wall with an opening for a syringe in order to acquire point source-based flood acquisition at a few meters distance from vertically positioned detector for QA purposes.
1	Quality Control Flood Source Holder Kit A large plate mounted at a small distance above the NM detector on which the flood source is positioned in order to perform acquisition of flood studies for QA/QC purposes.
1	Center of rotation source holder for Quality assurance , easily attached to Infinia or Ventri table.
1	bar phantom for spatial resolution and linearity tests of gamma cameras. The phantom consists of four quadrants with different bar specification: For each of the quadrant, bar spacing is 2.5mm, 3.2mm, 3.5mm & 4.0mm.
1	A set of cables designed to support the connection of the system to a 480V UPS for 0640 power regulation purposes.

Qty	Description
1	IVY 3000M RWAVE+CART
1	D670 – D630 Touch Ruler

An interactive touch-sensitive device mounted at one side of the patient table, used to define nuclear imaging scan range (start and stop points), saving the need to enter these values manually from the operator console

| 1 | NM600 DETECTORS DISMOUNT |

An option enabling transportation and mobilization of the NM600 series gantry separated from the detectors for easier load in elevators or easier access through restricted paths such as narrow hallways or doorways

| 1 | Cedars Sinai Cardiac Packages (option) A comprehensive set of nuclear cardiology protocols for advanced cardiac analysis, including: o Cedars Sinai Quantitative Perfusion SPECT? (option) o Automatic 3-Dimensional software approach to quantitative Perfusion SPECT. o Cedars Sinai Quantitative Gated SPECT? (option) o An application calculating the ejection fraction of the left ventricle and a 3D surface display is generated. o Cedars Sinai Companion (option) o Optional module for QGS and QPS applications features - 17 segment scores and templates in QPS - Diastolic filling parameters in QGS - Eccentricity ratio in QGS |

| 1 | Evolution Family contains the following: |

EFB FOR XELERIS 3

Evolution for Bone provides Evolution Resolution Recovery reconstruction on SPECT bone scans. The EfB application may be utilized to provide equivalent image quality on half-dose or half-time bone scans. This license H3901MD processes Infinia,Infinia Hawkeye 4,and Discovery 600 series family of camera data. This license can only function with pre-requisite JHU-RR (H3901KS/H3901KT) and (H3602NH) EFB SPECT CAMERA LICENSE

Evolution for Cardiac for Xeleris 3

Evolution for Cardiac provides EfC provides Evolution Resolution Recovery Reconstruction on SPECT Myocardial Perfusion Imaging (MPI) scans. The EfC application may be utilized to provide equivalent image quality on half-dose or half-time MPI scans. This license H3901ME processes Infinia, Infinia Hawkeye 4, Ventri and Discovery 600 series family of camera data. This license can only function with pre-requisite JHU-RR (H3901KS/H3901KT) and (H3602NJ) EFC SPECT CAMERA LICENSE

EVOLUTION PLANAR BONE

Xeleris 3 Evolution for Planar Bone enables reduced time or dose on whole body or spot bone studies acquired on Discovery 600 series and Infinia cameras.

Qty	Description

JHU RR 1ST OR 2ND LICENSE

Xeleris Plug-in for Evolution Family enables the integration of Evolution Resolution Recovery Applications within the Xeleris 3 workflow. Single license required for all applications except Evolution for Planar Bone.

Evolution for Bone SPECT Camera License

Enables Camera capability to provide data for Evolution for Bone (EfB). EfB provides Evolution Resolution Recovery reconstruction on SPECT bone scans. The EfB application may be utilized to provide equivalent image quality on half-dose or half-time bone scans. Available for Infinia and Infinia Hawkeye 4 (on Windows XP Operating System) as well as Discovery 600 series cameras. This license can only function with pre-requisite JHU-RR (H3901KS/H3901KT) and EFB FOR XELERIS3 (H3901MD)

EFB PLANAR CAMERA LICENSE

Enables Camera capability to provide data for Evolution for Planar Bone (EfPB). EfPB provides adaptive Structure Matching non-Local filtering on planar bone scans. The EfPB application may be utilized to provide equivalent image quality on half-dose or half time bone scans. Effective for Disc 600 series, Infinia and Infinia Hawkeye 4 family of cameras. This license can only function with pre-requisite Evolution Planar Bone (H3901NF)

Evolution for Cardiac Camera License

Enables Camera capability to provide data for Evolution for Cardiac (EfC). EfC provides Evolution Resolution Recovery reconstruction on SPECT Myocardial Perfusion Imaging (MPI) scans. The EfC application may be utilized to provide equivalent image quality on half-dose or half-time MPI scans. Available for Infinia and Infinia Hawkeye 4 (on Windows XP Operating System) as well as Discovery 600 series and Ventri cameras. This license can only function with pre-requisite JHU-RR (H3901KS/H3901KT) and EFC FOR XELERIS3 (H3901ME)

EVOLUTION TOOLKIT

Xeleris 3 Evolution Toolkit provides Evolution reconstruction benefits integrated within the Volumetrix MI workflow. The Evolution Toolkit contains statistical tools to model reduced time or injected dose. Evolution reconstruction supports Tc99m, In111, Ga67,I123 and TI201 isotopes and the Discovery 600 series and Infinia cameras.

EVOLUTION TOOLKIT CAMERA LICENSE

Enables Camera capability to provide data for Evolution Toolkit. The Evolution Toolkit provides Evolution Resolution Recovery reconstruction on SPECT scans resulting in improved resolution and contrast. The Evolution Toolkit application may be utilized with included statistical re-sampling tools to determine optimal dose or time reduction on SPECT studies. Evolution Toolkit supports TI201, Tc99m, I-123, Ga67, In111 isotopes. Available for Infinia and Infinia

Qty	Description
	Hawkeye 4 (on Windows XP Operating System) as well as Discovery 600 series and Ventri cameras. This license can only function with pre-requisite JHU-RR (H3901KS/H3901KT) and EFB FOR XELERIS3 (H3901MD)
1	TiP NM Onsite Training for GE SPECT/CT Camera Systems and Workstation

1   **TiP NM Onsite Training for GE SPECT/CT Camera Systems and Workstation**

8 Days of TiP Onsite Training. 4 Days initial startup training and 4 Days follow up training.

Onsite training is delivered Monday through Friday between 8AM and 5PM. TELL expenses are included.

This training program must be scheduled and completed within 12 months after the date of product delivery.

1   **6 KVA UPS for Nuclear Medicine**

FEATURES/BENEFITS

- 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
- The Online Double Conversion UPS eliminates all power anomalies such as noise, transients, overvoltage and undervoltage, which could damage the imaging system's sensitive computer components
- Improves imaging system reliability, reduces service costs, and increases system uptime
- Cell Saver Technology provides conditioned power even during severe brownout conditions without depleting battery resources
- System monitoring via: LanSafe III / FailSafe III software, (2) RS-232 Ports
- PowerPass Module further enhances reliability through Maintenance Bypass Switch which performs maintenance or upgrade your UPS without powering down your critical systems

SPECIFICATIONS

- Dimensions (H x W x DI: 33.6" x 9.9" x 15.8"
- Weight: 218 lbs.
- Input Voltage: 200 - 240 VAC
- Output Voltage: 120/240, 120/208 VAC
- Frequency: 45-65 Hz

COMPATIBILITY

- Maxxus NM

NOTES:

- Customer is responsible for rigging and arranging for installation with a certified electrician

Qty	Description
	• ITEM IS NON-RETURNABLE AND NON-REFUNDABLE
1	Patient Arm Support for NM, PET/CT, MR
	Padded Arm Rest combines total arm support and passive restraint, increasing patient comfort during extended procedures. Designed to accommodate virtually all patients. Compatible with most Nuclear Imaging systems and can also be used in MRI, CT and PET applications. Constructed with a comfortable, full support polyfoam with a seamless coated finish. Warranty Code: H
1	Patient Leg Rest for Nuclear, PET/CT, MRI
	Contoured Leg Rest prevents low back stress and pain that occurs during supine imaging and treatment, measures 7 in. H x 17 in. D x 13 in. W. Designed to accommodate virtually all patients. Compatible with most Nuclear Imaging systems and can also be used in MRI, CT and PET applications. Constructed with a comfortable, full support polyfoam with a seamless coated finish. Warranty Code: H
1	Nuclear Basic Service (Class/Lab)
	The Nuclear Basic Service class will provide the student with the theory of how a Gamma Camera operates and allow them to work safely in a nuclear environment. They will gain hands on experience on a variety of current GE Nuclear equipment allowing them to perform basic service This course must be taken within 2 years from the purchase date.
1	Discovery NM630 and Brivo NM615(class/lab)
	This course provides information on system components and the tasks required to calibrate and service the Discovery NM/CT670, Discovery NM630 and Brivo NM615 systems. Additional CT training may be required for D670 certification. This training must be taken within 2 years from the purchase date.
1	OPTIMA NM CT 640 SCV TRNG
10	Meals and Lodging Expense has been developed to allow the customer the convenience of prepaying for their meals and lodging expenses when attending Technical Service Training at the GE Healthcare Institute located in Waukesha, WI.
	The price of this convenience is based on a per day basis. Thus a quantity of 1 is equal to 1 day's meals and lodging expense. When purchasing the meals and lodging expense please be mindful of weekend days during the training stay and include 2 days to cover a weekend in the purchase quantity.
	Examples: A 5-day course needs a quantity of 5. Any course longer than 5 days should include 2 days to account for the weekend stay. Any course longer than 10 days will require an additional

Qty	Description
	4 days of the meals and lodging expense to cover the 2 weekends of the stay. Thus a 15-day course would have a quantity of 19 days to cover the 2 weekends of the stay. This expense must be used within 2 years from the purchase date.
	Three meals a day Monday thru Thursday, 2 meals on Friday, pluse breaks are provided in the onsite cafeteria. The GE Healthcare Institute cafeteria closes Friday after lunch and reopens Monday morning for breakfast. Weekend meals are the responsibility of the customer.
	Only for In-resident courses to be taken at the GE Healthcare Institute.
1	The AIRFARE EXPENSE has been developed to allow the customer the convenience to prepay their roundtrip Airfare expenses when attending Technical Service Training at the GE Healthcare Institute located in Waukesha, WI. To be used for engineers attending In-Resident Class/Lab courses for Diagnostic Imaging.
	Customer will make their Airfare arrangements thru the GE Travel Center. Specific directions will be provided to the customer upon confirmation of class. Please note that this expense must be used within 2 years of the purchase date
1	Lodging Weekend Expense
	Weekend Lodging Expense is to cover Saturday and Sunday lodging expenses for those engineers who are staying at the Rivers Edge Condos while attending Diagnostic Imaging Biomed training at the Healthcare Institute. Please note that there are no meals included on the weekend. Must be used within 2 years from the purchase date.
1	Xeleris Service Web
	Xeleris 2.0 e-training provides a comprehensive training tool that allows field engineers to install, configure, maintain and service the Xeleris 2.0 workstation. This course must be taken within 2 years from the purchase date.
1	CT BASICS 4 NM SVC TRNG
1	Troubleshooting Basics Service (Web)
	This Course is Intended for Individuals Involved in Servicing Medical Equipment. By Taking This Course, You will Learn a Proven Process for Troubleshooting Problems with Medical Equipment. You will Also Learn How to Use Various Tools in a Troubleshooting Situation and How to Interpret Error Messages. This Course Does Not Address How to Troubleshoot Specific Products. It is Recommended That you Have Fundamental Training in a Modality Prior to Taking This Course. This course must be taken within 2 years from the purchase date.
1	
1	The acquisition cart is an ergonomically designed, flexible, mobile yet stable device. The cart is

Qty	Description
	designed to carry a display monitor, a Keyboard, a mouse and a PC-tower on board. Modular design enables easy customization by flexible positioning of the keyboard support tray , the monitor support bracket height ,the screen angle and the mouse support tray orientation (left/right) per user preferences and needs. Turnkey for room deinstall of Skylight