XR-CT, VAMC TUSCALOOSA, ALPO# 679-5B5000 TRADE IN

1	1	The Optima CT660 is GE's latest generation intelligent CT system. It is a scalable 64 slice platform including advanced innovations from our Discovery Series (TM). This means that Optima CT660 is capable of addressing your advanced clinical needs. Optima CT660 with Xtream gantry display is ready to help you deliver personalized care for your demanding patient schedule and quickly manage your unscheduled ED exams. With the Optima CT660 you get fast, high-quality acquisition at optimized dose for patients young and old, large and small, across a wide spectrum of procedures: angiography, brain, chest, abdomen, orthopedic, and more. Key Features: o Exclusive V-Res (TM) Detector technology providing 20mm of 0.625mm or 40mm of 1.25mm acquisitions

o Volara* XT Digital DAS (Data Acquisition

System): The Volara* XT digital DAS for faster

sampling and improved image performance and

reduced artifacts

o Fast coverage speed of 110mm/sec

o Full 360 degree rotation in 0.4,

0.5, 0.6, 0.7, 0.8, 0.9, 1.0 and 2.0 (axial)

seconds, ensuring short breath

holds, comfortable exams and flexibility

to customize protocols for unique patient needs

with minimal coverage impact

o Routine thin slice scanning, as thin as

0.625mm or 1.25mm optimizing the use of thinner

images for sagittal, coronal, oblique, and

volume image presentation and review

o The overlapped reconstruction feature

enables 192 slices reconstruction in helical

acquisitions and 64 slices per rotation in axial

mode delivering improved Z-axis visualization

performance relative to non-overlapped

reconstruction

o Highly efficient compact geometry design

delivering optimum performance of

the x-ray tube

and generator

o Image decomposition to:

- Retrospective thin images from data sets

where thicker images were initially

reconstructed

- Facilitates more detailed image analysis

- Improves 3D and reformat visualization

o ASiR reconstruction technology may enable

reduction in pixel noise standard deviation

(a measurement of image noise). The ASiR

reconstruction algorithm may allow for reduced

mA in the acquisition of images, thereby

reducing the dose required (**).

o A reconstruction technology that may enable

improvement in low contrast detectability(**)

(**) In clinical practice, the use of ASiR may

reduce CT patient dose depending on the clinical

task, patient size, anatomical location and

clinical practice. A consultation with a

radiologist and physicist should be made to

determine the appropriate dose to

obtain

diagnostic image quality for the particular

clinical task.

Fast, User-Friendly Simultaneous Workflow:

o Advanced Workflow Platform, the next

evolution of GE's workflow platform built to

help you maximize productivity.

- Delivers up to 16 images per second (ips)

reconstruction

- Image Check delivers up to 55 images per

second (ips) reconstruction (340x340 matrix)

- Up to 10 fps network transfer rates

- Direct Multiplanar Reformats (DMPR) that

enables the move from 2D review to

prospective 3D review of sagittal, coronal

and oblique planes automatically

- Data Export and Interchange that allow you

to easily share images with referring

physicians and patients

o One Stop ED mode: Optima CT660's exclusive

12" Xtream touch display on the gantry enables

unique one stop ED scanning to streamlined ED

exam workflow allowing patient selection,

protocol selection and confirming exam

parameters directly at the gantry, without

having to leave the patients side.

o Includes reference protocols

and the ability to customize your own

for a total of 6,840 programmable protocols

o SmartPrep with Dynamic Transition allows

low dose intermittent monitoring of intravenous

contrast enhancement in a user-selected section

of anatomy. With Dynamic Transition when the

prescribed contrast enhancement is reached the

system will automatically transition from the

monitoring phase to the scan phase

o 10 Prospective Multiple Reconstructions: Up

to 10 reconstructions can be pre-programmed as

part of the scan protocol prior to acquisition.

The operator can select different start/end

location, slice thickness, interval, interval

reconstruction algorithms and display fields of

view for each reconstruction. Assisting to

prospectively prescribing the image

reconstructions needed, even for complex trauma

exams and freeing the user up to focus on the

patient

o Remote tilt from the operator console to

increase exam speed

o Built-in breathing lights with a countdown

timer, so the patient does not have to guess

how much longer to hold their breath

o New built-in 12-inch touch screen gantry

display allows technologists to deliver

personalized care by displaying the patient's

name on it. When not scanning, the video of

relaxing scenes or cartoons may

have a calming effect on children or

patients of all ages

o By using the One Step patient positioning

on built-in 12-inch touch screen gantry display

the bed provides automatic positioning

according to the type of exam, reducing manual

positioning and streamlining workflow

o In room start button mounted on gantry with

countdown display, facilitates single
technologist operation and improved
departmental productivity
o GE software allows you to automate or build
every task into the protocols to increase
throughput
o Has up to 250,000 uncompressed 512 x 2 image
files storage capacity, and 3,520 scan
rotations, or up to 1,500 scan data files, or
up to 300 exams
Dose Management Leadership:
o OptiDose management features: new bowtie
filters optimized for adult and pediatric body
exams, full 3D dose modulation, color coding for
kids, tracking collimator hardware and software
for x-ray beam tracking to name a few of GE's
dose optimization features, all based on the
ALARA principle
o Dynamic Z-axis tracking provides automatic
and continuous correction of the x-ray beam
shape to block unused x-ray at the beginning
and end of a helical scan to reduce

unnessary

patient radiation

o 3D Dose modulation - Before the scan,

clinicians must select the desired Noise Index

as well as the minimum and maximum mA setting.

The system automatically accounts for the

changing dimensions of the patient's anatomy

enabling patient to patient reproducibility in

this aspect of image quality and real-time

x-y-z during each scan

o Tracking collimator hardware and software

for x-ray beam tracking to minimize patient dose

o Filtration of the x-ay beam is optimized

independently for body and head applications

o DLP (dose length product), and dose

efficiency display during scan prescription

provides the patient's dose information

to the operator

o Dose Reporting provides access to the

CTDIvol and DLP with the patient record prior

and post exam. DICOM Structured Dose Report is

also supported.

o Dose Check provides the user with tools to

help them manage CT dose in clinical practice

and is based on the standard XR-25-2010

published by The Association of Electrical and

Medical Imaging Equipment Manufacturers (NEMA).

Dose Check provides the following:

- Checking against a Notification Value if

the estimated dose for the scan is above

your site established value

- Checking against an Alert Value where the

user needs specific authority to continue

the scan at the current estimated dose

without changing the scan parameters if

the estimated dose exceeds the alert value

- The ability to define Alert Values for

Adult and Pediatric with age threshold

- Audit logging and review capabilities

- Protocol Change Control capabilities

The Advanced Reconstruction breaks through

existing limits on speed, image quality and

flexibility to provide an optimized

volumetric

workflow solution from acquisition to final

report and has the capability to deliver up to

16 full fidelity images per second (ips)

reconstruction and 10 fps network transfer

rates.

Clinical Benefits:

o CTA runoffs

o Thin slices fast; routine use of thin slices

o Organ coverage in arterial phase

o Long helical scans

o Multi-phase organ studies

o Improved multi-planar reformats with

isotropic microvoxel imaging

o Fast scanning with outstanding image

performance and GE's proprietary cross beam and

hyperplane helical reconstruction algorithms

o System designed for optimization of z-axis

resolution and dose with 0.625mm slice thickness

System Components:

Gantry:

o Advanced slip ring design

continuously rotates the generator, Performix

40 X-ray tube, detector and Volara XT

digital data acquisition system around the

patient.

- Aperture: 70 cm

- Maximum SFOV: 50 cm

- Rotational Speeds: 360 degrees in 0.4

0.5, 0.6, 0.7, 0.8, 0.9, 1.0 and

2.0 (axial) seconds

- Tilt: +/ 30 degrees, speed 1 degree/sec

- Remote tilt from operator's console

- Integrated breathing lights and countdown

timer

- Integrated 12-inch touch screen on gantry

with workflow features

- Integrated start scan button with

countdown timer to indicate when x-ray will

turn on

o Visual readout is easy to read from the

tableside or from the operator console. Gantry

tilt controls are located on the side of the

gantry.

Laser Alignment Lights:

o Defined internal and external scan planes

to +/- 1mm accuracy

o Operate over full range of gantry tilt

o Coronal light remains perpendicular to axial

light as gantry tilts

Table:

o Cantilever design for easy access

o Vertical range: 43.0 cm to 99.1 cm

o Vertical scannable range: 79.1 cm to 99.1

o Horizontal range: 1,745 mm (VT1700 Table),

or 2,045 mm (VT 2000 Table)

o Horizontal speed: up to 137.5 mm/sec

o Table load capacity: 227 kg (500 lb)

+/- 0.25mm positional accuracy

X-ray Tube: Performix 40 metal-ceramic tube unit

o Performix 40 tube with 6.3 MHU of storage

and capable of 72kW operation provides increased

helical performance with greater patient

throughput

o Wide range of technique (10 mA to 560 mA, in

5 mA increments) gives technologist and

physician flexibility to tailor protocols to

specific patient needs, while optimizing patient

dose, and providing the power needed to perform

a broad spectrum of examinations.

o Maximum anode heat storage capacity: 6.3 MHU

o Dual Focal Spots:

- Small Focal Spot: 0.9 x 0.7 IEC60336:2005

- Large Focal Spot: 1.2 x 1.1 IEC60336:2005

o Maximum power: 72 kW

o Beam collimated to 56 degree fan angle

High Voltage Generator: High Frequency

on-board generator allows for continuous

operation during scan.

o 72 kW Output Power

o kV: 80, 100, 120, 140 kV

o mA: 10 to 560 mA, 5 mA increments

Maximum mA for Each kV Selection (large focal

spot):

o 400mA @ 80kV

o 480mA @ 100kV

o 560mA @ 120kV

o 515mA @ 140kV

V-Res Detector: The V-Res detector was designed

for high performance imaging.

V-Res detector benefits are:

o Solid 40mm coverage per rotation

o GE's exclusive patented detector material

Volara XT Digital DAS (Data Acquisition System):

The Volara XT digital DAS dramatically reduces

electrical noise for improved imaging

performance.

o 2,460Hz maximum sample rate

o Effective analog to digital conversion

Optima CT660 Operator Console:

o 1,792GB of total system storage

o Up to 250,000 512 x 2 images and 3,520 scan

rotations or up to 1,500 scan data files, or up

to 300 exams

o 4.7 GB DVD-R/CD-R for DICOM interchange (not

recommended as a long term archive)

Image Networking: Exams can be selected and

moved between the Optima CT660 CT

System and any imaging system supporting

DICOM protocol for network send, receive and

pull/inquiry.

o Standard Auto-configuring Ethernet

o Direct Network Connection

o Supports 1GB or 1000/100/10 BaseT

DICOM Conformance Standards

o DICOM Storage Service Class

o Service Class User (SCU) for image send

o Service Class Provider(SCP)for image receive

o DICOM Query/Retrieve Service Class

o DICOM Storage Commitment Class Push

o DICOM Modality Worklist (incl. Performed

Procedure Step) (through ConnectPro option)

o DICOM Print

The Optima CT660 workflow platform is designed

to deliver high performance in each of

these tasks:

o SmartTools Simplifies Scan Setup and

Includes All Reconstructions, Filming,

Archiving, Transferring Prospectively

o Workflow platform built on the LINUX

operating system delivers up to 16 fps

reconstruction and the fast network transfer

rates of up to 10 fps

o Data Export and Interchange allow you to

easily share images with referring physicians

and patients

o Direct MPR that enables the move from 2D

review to 3D image review of axial, sagittal,

coronal and oblique planes automatically

o Exam Split delivers the capability to split

a series of patient images into separate

groups for networking

o Exam Rx desktop environment

provides the
clinical tools desired for fast, efficient
control of patient studies. Exam Rx tools
include patient scheduling and data entry, exam
protocol selection, protocol viewing and
editing, scan data acquisition, image display
and routine analysis, AutoTransfer, AutoStore,
and AutoFilm
o ImageWorks is a desktop environment designed
to take advantage of the Optima CT660 CT
System advanced computer systems. Standard
features include archive, network and manual
film control, as well as some advanced image
processing such as Direct multi-planar
reformatting (DMPR), multi-projection volume
rendering (MPVR) and display. The ImageWorks
desktop also provides a gateway for DICOM 3.0
image transactions, either through a local area
network, or via DICOM-formatted media
o Volume Viewer includes Volume Analysis,

Volume Rendering and Navigator software. This
combination allows the user to render volumetric
data in three dimensions for use in analysis of
patient condition, i.e. CT Angiography (CTA),
gives more information on the spatial
relationships of structures than standard 3D,
allows the translucent visualization of
structures for improved problem solving, can
perform "virtual endoscopies" of air and
contrast fileed structures. Enables 3D reformats
in any plane, ALL on the Xtream ready console.

Scan Modes: The Optima CT660 system can
perform virtually any clinical application due
to its wide variety of scan modes. Helical
scan mode offers continuous 360 degree scanning
with table incrementation and no interscan
delay. Axial scan mode allows for up to 64
contiguous axial slices acquired simultaneously
with each 360 degree rotation.

o Helical scanning pitches: 0.516:1,

0.984:1,

1.375:1

o Retrospective reconstruction image

thicknesses: 64 x 0.625

Scan Enhancements:

o Anatomical programmer: a ten region

anatomical selector allows quick and easy access

to user programmable protocols and a separate

selector for adult and pediatric exams with

greater than 6,840 protocol storage available

o Protocols include preset scan time, kV, mA,

scan mode, image thickness and spacing, table

speed, scan FOV, display FOV and center, recon

algorithm, and special image acquisition and

processing options like DMPR

o Any scan parameters may be edited for each

scan or all scans - either before or during an

exam. The number of scans may also be easily

changed

o AutoScan: Automates longitudinal table

movement and start of each scan

o Auto-Voice: 3 preset (9 languages)

and 17

user defined messages automatically deliver

patient breathing instructions, especially

useful for multiple helical scanning

o Trauma Patient: Allows patient scans and

image display/analysis without entering patient

data before scanning

o Reconstruction Algorithms: Soft Tissue,

Standard, Detail, Chest, Bone, Bone Plus, Lung,

and Edge

Warranty: The published Company warranty in

effect on the date of shipment shall apply. The

Company reserves the right to make changes. All

specifications are subject to change.

Regulatory compliance: This product is designed

to comply with applicable standards under the

radiation control for Health and Safety Act of

1968.

Laser alignment devices contained within this

product are appropriately labeled according to

the requirements of the Center for Devices and

		Radiological Health. Siting Considerations: See the Pre-Installation manual for details of the siting requirements for the Optima CT660. This product is a CE-compliant device that satisfies IEC60601-1:1998 and applicable collateral and particular standards, including regulations regarding Electro-Magnetic Compatibility (EMC) and Electro-Magnetic Interference (EMI), pursuant to IEC-60601-1-2:2004. This product complies with NEMA Standard 29-2013.
2	1	English Keyboard Kit
3	1	STD CABLE COLLECTOR
4	1	VT1700 Table
5	1	The Freedom workspace is an ergonomic working environment specifically designed for use with the GE Healthcare imaging systems. The sleek table design enables the efficient use of space while enhancing clinical workflow and

		technologist comfort. The Freedom workspace provides a minimalist footprint to improve patient visibility and giving the user easier access to patients in the imaging suite. It offers sit/stand and horizontal/vertical monitor flexibility. It can also help reduce noise and heat with remote location options of the console. The non-adjustable Freedom workspace version is 1300mm long x 895mm wide x 850mm height and weighs 55.8kg.
6	1	AW VolumeShare 5 with Two Flat Panel Monitors and 6GB of RAM. AW VolumeShare 5 is a multi-modality image review, comparison and post processing workstation built with simplicity and power at its core. Powerful software is optimized to take advantage of state of the art 64 bit technology and multiple cores to ensure leading edge performance. AW VolumeShare 5 features include:

Hardware:

o HP Z800 Workstation with Intel x5650 Six

Core Xeon 2.66 GHz CPU with 8MB

Shared L2 Cache / 1333 MHz Dual FSB

o 6GB DDR-3 1333 ECC DIMM

o 300GB SAS 15,000rpm Hard Disk for OS and

Apps.

o 600GB SAS 15,000rpm Hard Disks for Image

Data

o 2 x 19" EIZO MX191 Monitors

Software:

o Fast access to information you need through

optional RIS integration & priors post-fetch

o Efficient workflow through dynamic load, end

review and Key Image Notes features

o Optional productivity package to pre-process

exams and allow up to 8 simultaneous

sessions

o Applications usage monitor to track usage of

your system

o Smart layouts with Volume Viewer General

review protocol that optimizes comparison

and single exam layouts

o Enhanced multi-modality contouring tool

		with support for PET SUV's o Support for external DICOM USB media and preference management tool to exchange preferences across users o Support for optional, broad suite of multi-modality advanced applications
7	1	Lung VCAR for AW VolumeShare5 Volume Computer Assisted Reading (VCAR) takes a new direction in application design, leveraging (exploiting) the power of high resolution, volume scanning. This new technology is enabled by the Automatic Detection, Precise Segmentation and Interactive Quantitative Analysis that enhances analytics and improves data management. The result being better informed decisions and improved patient management. Key features include: o Digital Contrast Agent (DCA)-Automatically visualizes and highlights abnormal and potentially cancerous pulmonary solid nodules o Bookmarking Tools for ease of image review and analysis

o Correlated Workflow-Synchronized 2D, DCA and

Segmented Analysis

o One Click Solid Nodule Segmentation from

vessels and pleural wall

o Segmentation Analysis of all nodule types

Solid, Non-Solid and Part Solid

o Automatic Nodule Analysis Provides:

- Percent Growth

- Doubling Time

- Volumes

o Automatic Segmentation of both the right and

left lungs thus reducing the visual

distractions associated with anatomy not of

interest

o Cross Reference/Correlation Bar Provides a

quick reference to aid in the localization

of a nodules global location

o Image Display Tools for comparison of

initial and follow-up exams

o Automatic Bookmark Propagation from previous

to current or current to previous exams

o Automatic Image Registration for image

review synchronization

o Temporal Statistics Display for fast

		informed decisions o Customizable Personal Review Layouts o Interactive Patient Reporting (DICOM SR) Provides both sttructure and flexibility Lung VCAR requirements: AW VolumeShare5
8	1	Uninterruptible Power Supply Exide Uninterruptible Power Supply. Custom Designed Firmware to Interconnect with LightSpeed Pro, LightSpeed RT, Optima and BrightSpeed Systems. The UPS Primarily Backs Up the System Computer Functions. Bridges Short Power Outages and Provides Time for Crossover from Normal Main Power to Emergency Power. Must be Located Within Eight Feet of the PDU.
9	1	90 Amp Main Disconnect Panel for CT This 90 amp main disconnect panel for GEHC CT systems provides emergency shut down, undervoltage protection, overcurrent protection, local disconnect for the imaging system. It also

		reduces installation time and cost by providing a single-point power connection eliminating the need to mount and wire a number of individual components. The standardized design and testing assures high product quality and system reliability, and it is UL and cUL listed for compliance with National Electric Code. Panel can be surface or semi-flush mounted and includes one remote emergency off push button. Customer is responsible for rigging and arranging for installation by a licensed electrician. ITEM IS NON-RETURNABLE and NON NON-REFUNDABLE Warranty Code: Y
10	1	Slicker - CT HD750 and VCT w/GT 1700 Table (2 Piece Set) FEATURES/BENEFITS o Two-piece, sealed slicker cushion set has comfort pads enclosed inside the slicker cover and extender cover o Durable, clear PVC plastic cover facilitates faster, more thorough cleanup of

		blood and fluids o Increase system uptime by protecting table from spills and particulate contaminants o Thermo-sealed seams and flaps prevent contaminate buildup in hard to clean areas COMPATIBILITY o VCT with GT 1700 Table, CT HD750
11	1	Footswitch Slicker for CT HD750 and VCT Systems The footswitch slicker for CT VCT 2000 and 1700 systems is made of durable, clear PVC plastic that protects the footswitch and facilitates faster, more thorough cleanup of contamination caused by blood and other body fluids. Cover is held securely in place with Velcro...H
12	1	6 Day CT TiP Onsite System Training CT Onsite Training for a new CT system o One 4 day onsite visit to coincide with system start-up. o One 2 day onsite follow-up visit 6-8 weeks post system start up.

During the first visit, the applications specialist will work with the medical and technical staff on system operation and patient procedures. The training produces the best results when a dedicated core group of 2-4 CT technologists complete the session with a modified patient schedule. It is suggested that key physicians are available to participate in the protocol implementation and image quality review sessions. By the end of this visit, the core group should be able to perform the routine patient procedures.

The 2 day revisit is suggested after the staff has run the system for 6-8 weeks, however this is flexible based on the site needs. The training will focus on the intermediate and advanced functions of the system or special needs of the customer. The training produces the best results when the same dedicated core group of 2-4 CT technologists from the

		initial visit complete the session with a modified patient schedule. This training program must be scheduled and completed within 12 months after the date of product delivery.
13	1	2 Days CT TiP Onsite Training Two Day CT Onsite Training provided from 8AM to 5PM, Monday through Friday. Includes T&L expenses. Days provided consecutively. This training program must be scheduled and completed within 12 months after the date of product delivery.

Item No.	Qty	Description	Ext Sell Price
14	1	SmartView(TM) Fluoro Package Includes In-Room Monitor and Boom SmartView Enables an Imaging Mode for Performing Biopsies and Other Interventional Procedures. An In-room Monitor, Hand Held Controller, X-ray Exposure Foot Pedal and Cradle Handle Provide In-room Control for Image Acquisition and Image Review. The Hand Held Controller Provides the Operator with Controls to Prepare the Scanner for Imaging, to Turn Alignment Lights On and Off, to Move the Cradle, Review Images and Adjust the Window Width and Level; and the Foot Switch Provides In-room Control of X-ray On. Image Display presents single or multi real time image display, a Free Viewport and timers for the remaining and accumulated exposure time and estimate of dose. The Display Control Panel Provides Roam, Zoom, Magnify, Measurement, Annotation, Grid, Image Orientation, and Save Screen Image Review Capabilities. Data Acquisition Includes a 4,8 or 16 row Data Acquisition Mode Using 4x0.625mm, 8x0.625 mm 16x0.625mm Detector Configurations and a 3i (8 FPS) or 1i (12 FPS) Reconstruction Mode to Create 1.5 (3i only), 2.5, 5 and 10mm (1i only) thick 340 Matrix Images. All Scan Fields of View and Reconstruction Algorithms are Available with	

		0.4, 0.5, 0.8s and 1.0s Gantry Rotation Speed. Tilted acquisition capability Only valid for customer with Discovery CT750 HD and LightSpeed VCT. Customers upgrading LightSpeed VCT systems require a GOC6 or higher console platform. .
15	1	Medrad Stellant D Dual-Flow Ceiling Mount Injection System with Short Post. Requires E8007PJ Mounting Plate be added to the order....E
16	1	OCS III MOUNTING PLATE

(Quoted prices do not reflect state and local taxes if applicable. Total Net Selling Price Includes Trade In allowance, if applicable.)