

# Equipment Specifications

## Digital Radiography

VISN 7 /Ralph H. Johnson VA Medical Center

[534-B92039, 534-B92040, 534-B92042, 534-B92043]

### A. REQUIREMENT OVERVIEW

Ralph H. Johnson VA Medical Center (Station 534) in Charleston, SC is requesting four (4) digital radiography X-Rays for the two (2) Community-Based Outpatient Clinics (CBOC). Two X-Rays will be delivered, installed and operating at the North Charleston CBOC and two X-Rays at the Myrtle Beach CBOC. Equipment will be used for advanced digital imaging studies in diagnosing, monitoring, and treating medical conditions of Veteran patients. All systems must be delivered with the latest software during time of delivery and include all accessories to operate effectively. Standard and Bariatric feasibilities must be accommodated.

Facility	Quantity
Charleston CBOC - North Charleston: 534 – B92039; 534 – B92040	Two (2)
Charleston CBOC – Myrtle Beach: 534 – B92042; 534 – B92043	Two (2)

### B. TECHNICAL REQUIREMENTS

#### 1. Unit physical specifications

a. Minimum generator output power [kW]	80
b. Minimum generator voltage range [kV]	40-150
c. Table Type	Motorized, Elevating, Float Top
d. Wall Bucky Type	Upright, Motorized
e. Minimum image plate height from floor [in]	30
f. Minimum tilt of imaging surface [deg]	90
g. Minimum standard table patient weight limit [lbs]	500
h. Minimum bariatric table patient weight limit [lbs]	750
i. Minimum table height from floor [in] - Lowest table height must be accommodating for wheelchair patients	52
j. Minimum detector size [in x in]	14 x 17
k. Maximum time for image display [s]	4
l. Minimum focal spot size [mm]	0.6
m. Maximum space dimensions of room for equipment [ft, in] (Not including control room)	North Charleston CBOC:



	15' 4" x 20' ½"
	Myrtle Beach CBOC: 17' 1" x 18' 5"
n. Type of X-Ray System	Fixed Room, Ceiling Mounted

## 2. Additional specifications

<input checked="" type="checkbox"/>	a. High-frequency generator with automatic dose rate control
<input checked="" type="checkbox"/>	b. Ability to accept multiple power feeds from 110v to 440v
<input checked="" type="checkbox"/>	c. Floor mount tube with bucky tracking for wall stand
<input checked="" type="checkbox"/>	d. In-room protocol adjustment via tube head or other in-room mounted system
<input checked="" type="checkbox"/>	e. Automated movement for long-axis stitching (option)
<input checked="" type="checkbox"/>	f. Automated tube positioning
<input checked="" type="checkbox"/>	g. Bariatric table <ul style="list-style-type: none"> <li>- At least one (1) room per CBOC must have a bariatric table and/or</li> <li>- Option for accessory attachments to extend tables width/length for bariatric patients</li> </ul>
<input checked="" type="checkbox"/>	h. Free-floating manual tabletop
<input checked="" type="checkbox"/>	i. Motor-driven tabletop movement in the X and Y axis at stated maximum weight capacity
<input checked="" type="checkbox"/>	j. High efficiency detector
<input checked="" type="checkbox"/>	k. Second plate <ul style="list-style-type: none"> <li>- One (1) plate in wall and one (1) in table</li> </ul>
<input checked="" type="checkbox"/>	l. Advanced imaging software

## 3. Software Requirements

<input checked="" type="checkbox"/>	a. Stitching – ability to stitch multiple long-axis images with options for automated and manual process
<input checked="" type="checkbox"/>	b. Bone suppression – ability to suppress overlaying bone such as ribs on chest images (option)
<input checked="" type="checkbox"/>	c. Ability to apply multiple image processing algorithms both pre- and post-acquisition to allow for soft tissue and/or bone enhancement
<input checked="" type="checkbox"/>	d. Dose monitoring – the system must be able to supply a technology that allows for monitoring and tracking of radiation dose provided to a patient
<input checked="" type="checkbox"/>	e. Dose reduction – the system must have systems in place to facilitate regular protocol optimization and reduced radiation dose to the patient
<input checked="" type="checkbox"/>	f. Repeat rate – ability to track repeat/retake data to include such items as technologist (required unique identifier), reason for repeat, patient dose, exam type, etc. The data should be



	exportable to Excel or other databases for tracking, trending, and combining with data from other imaging sources within the facility.
<input checked="" type="checkbox"/>	g. Security – ability to protect sensitive patient data using unique user authentication

#### 4. Workstation Requirements

a.	Minimum number of acquisition workstations	1
b.	Minimum acquisition workstation monitor size [in]	19
c.	Minimum acquisition workstation hard drive size [TB]	1
d.	Minimum number of processing workstations	1
e.	Minimum processing workstation monitor size [in]	19
f.	Minimum processing workstation hard drive size [TB]	1

#### 5. Security/Connectivity Requirements

<input checked="" type="checkbox"/>	a. OEM-supported operating system
<input checked="" type="checkbox"/>	b. Latest DICOM print, store, commit, radiation dose structured report (RDSR), and modality worklist
<input checked="" type="checkbox"/>	c. Encrypted hard drive
<input checked="" type="checkbox"/>	d. PACS compatibility – Vista Rad

#### 6. Added Value

Specifications listed below are not required, but preferred. Vendors who do not include the below specifications in the submitted offer will not be docked or excluded from consideration. Specifications listed below will be evaluated based on added value.

<input checked="" type="checkbox"/>	a. Additional year(s) of warranty
<input checked="" type="checkbox"/>	b. Post-warranty remote diagnostic service program
<input checked="" type="checkbox"/>	c. Version/platform long-range plan
<input checked="" type="checkbox"/>	d. X-Ray table base height capable of having Hoyer Mobile Patient Lift legs slid under table to assist with movement of patients to and from the table. Lift legs are 4.5" tall and have a minimum expansion of 39.5".
<input checked="" type="checkbox"/>	e. Prefer 16 x 16 inch or larger detector size

## C. TRAINING REQUIREMENTS

#### 1. Clinical Training

<input checked="" type="checkbox"/>	a. On-site clinical applications training for eight (8) total technologists during go-live.
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	- Four (4) technologists for North Charleston location and four (4) technologists for Myrtle Beach location. Training must be provided at the two separate locations.
<input checked="" type="checkbox"/>	b. On-site follow-up clinical applications training for eight (8) total technologists once technologists have hands-on experience with the system. - Four (4) technologists for North Charleston location and four (4) technologists for Myrtle Beach location. Training must be provided at the two separate locations.
<input checked="" type="checkbox"/>	c. Technologists who complete the clinical applications training shall receive continuing education credits (CMEs).
<input checked="" type="checkbox"/>	d. Vendors shall be responsible for accommodating different personnel shifts for clinical applications training during go-live.

## 2. Biomedical Technician Training

**Please reference the “Instructions to Offers” section 2.8.g for further information about the type of information to provide by equipment type not by specific request. Please also reference the “Instructions to Offers” section 7.3.3. for response format.**

Technical training information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.

Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be purchased at the time of need via a modification (if the original order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.

## D. SERVICE REQUIREMENTS

1. VPN/Remote Access – The vendor shall provide any and all equipment service programs, such as remote diagnostics, during the warranty period. The vendor shall provide post-warranty remote diagnostic service program as an “Add Option” with the offer. The system shall provide vendor remote diagnostics via VPN. The vendor shall either utilize the VA national site-to-site VPN or work with the Office of Cyber and Information Security and the VAMC Information Systems Security Officer to establish a client-based VPN.
2. Service and Operator Manuals – The vendor shall provide the following documentation for the proposed systems:
  - a. Two (2) copies of operator instruction manuals (one (1) electronic and one (1) physical copy)
  - b. Two (2) copies of a service manuals (one (1) electronic and one (1) physical copy)

\*Vendors can include the physical copy as a priced line item in their quote as applicable.

3. Minimum Warranty – The system and accessories shall be covered under the manufacturer’s warranty and shall include all parts and labor for one year following acceptance by the VAMC. This warranty must include PMs as required by the manufacturer. The manufacturer’s factory-trained field service representatives shall perform installation and maintenance during the warranty period.



Vendors are encouraged to include any offerings for service, warranty, and training that may exceed the minimum requirements, to include information on their service support structure during and after the warranty period. Vendors who do not include any added value offerings for service, warranty, and training will not be docked or excluded from consideration. However, any such offerings will be evaluated based on added value.

## E. OTHER INFORMATION/DOCUMENTATION REQUESTED

1. Please reference the "Instructions to Offers" section 2.8a-h for further information about the type of information to provide by equipment type not by specific request. Please also reference the "Instructions to Offers" section 7.3.3. for response format.
  1. Completed pre-procurement assessment form (6550 Appendix A)
  2. Completed Manufacture Disclosure Statement for Medical Device Security (MDS2) form
  3. Federal Information Processing Standard (FIPS) 140-2 certification
  4. Product brochures
  5. Technical specification sheets, to include dimensions and weight of the system
  6. Typical drawings (pdf version of the CAD drawings)
  7. Technical training- Biomedical: information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.
    - Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be purchased at the time of need via a modification (if the original order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.
  8. Support information to include your company's support structure during and after the warranty period
    - On-line or telephonic applications support and availability (include third party coverage)
    - A listing of field service engineer locations and availability
    - A listing of part depots

## F. TRADE-IN

<input checked="" type="checkbox"/>	a. In instances where sanitization of ePHI compromises the OS and/or application software, or requires the removal of internal storage media, the vendor accepts the equipment "as is" and can elect at their own discretion to contract with the original equipment manufacturer (OEM) to restore the system.
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The following equipment is available for trade-in. Please reflect any credits provided for trade-in equipment in the proposal.

Station	534
Manufacturer	GE
Model	XR656
EE/Asset Number	178854
Serial Number	843477VAMB



## G. SUMMARY OF REQUIREMENTS

Table G-1:

Facility	PO Number	Room Size	Patient Weight Per Table	On-Site Training	Trade In
North Charleston CBOC	534 – B92039; 534 – B92040	15' 4" x 20' ½"	One table standard, One table bariatric	Four (4) Technologists	No trade In Available
Myrtle Beach CBOC	534 – B92042; 534 – B92043	17' 1" x 18' 5"	One table standard, One table bariatric	Four (4) Technologists	One trade in unit listed above

The above table (G-1) lists the break out of the items/dimensions specific to the two CBOC locations. Besides the items in G-1, all other requirements listed in this document are inclusive of both locations.

