Ⅰ 입찰공고 SPEC

입찰번호 Bidding NO.	입찰건명 Description	단위 Unit	수량 Q'TY
2022-042	**디지털엑스선촬영장치** **(Digital Radiography System) - 서울**	**SET**	**1**

A. Specifications

▶Type A

1. Inverter type high-frequency generator
 1)Power: 80kw
 2)kV range: 40-150kV
 3)mA range: 10 - 1000 mA
 4)mAs range: 0.1~1000 mAs
 5)Exposure time: 0.001-10sec

2. Ceiling suspended X-ray tube support
 1)Moving Range
  -Vertical travel: 1600
  -Fixed Rail: 3000/3300/3600/4000/4500 mm
  -Moving Rail: 2400/2700/3000/3300 mm
  -Operation: Manual, electromagnetic lock, auto positioning
 2)Rotation: ±180
 3)Synchro with Bucky stand: Auto or 350~1800mm(center standard)
 4)Full Auto Positioning: Simultaneous driving of 6 axis
 5)Safety Sensor
 6)15.6 inch Touch Monitor

3. Heavy duty X-ray tube unit
 1)Focal Spot Size: 0.6/1.2mm
 2)Anode Heat Capacity: 600kHU
 3)Target angle: 12°

4. Collimator
 1)Type: Rectangular
 2)Maximum Size: 47cm*47cm
 3)Minimum Size: Full Closed

5. Bucky Table
 1)Type: Motor driven elevating table
 2)Table top longitudinal travel: ±300mm
 3)Table top transversal travel: ±150mm
 4)Up/Down Movement: 510~860mm
 5)Allowance of patient weight: 310kg
 6)Fixed Grid ratio: 12:1

6. Wall Bucky Stand
 1)Type: Digital Tilting Wall stand
 2)Vertical Travel: 1450mm
 3)X-ray grid: Stationary
 4)Fixed Grid ratio: 12:1

7. Digital Flat Panel Detector
 1)Type: Amorphous silicon TFT
 2)Scintillator: CSI
 3)Detector Size : 17 X 17 inch(43cm X 43cm)
 4)Number of pixels : 3,072 X 3,072
 5)Pixel pitch : 140㎛
 6)Output gradation : 16bit
 7)Image acquisition time: final image: within 3 seconds or less
 8)Type: Terthered

8. Image processor
 1)ELUI DXIE

9. Auto tracking function: possible

10. Auto positioning function: possible

11. Dose monitoring system
 1)Dose Area Product (DAP)

12. AEC

13. Workstation
 1)CPU: 3.3GHz/Quad core
 2)RAM: 4GB DDR3 PC3-12800
 3)HDD: 1TB
 4)SDD: 120GB
 5)OS: Win10 64bit
6)Monitor: 21 Inch LCD monitor
7)Image acquisition time: Final image: within 3 seconds or less

14. DICOM 3.0 Package

15. Software Function
 1)EI Display, AWC Function
 2)HIS/RIS interlock
 3)Image Rotation
 4)Multi-Frequency Image processing
 5)Parameter indication
 6)Noise canceling
 7)Adjusting Gray Scale
 8)Auto Voice

16. High-tension cable

17. Whole Spine Package

1)X-ray tube matching type: Angulation
2)Image switching type: Full auto stitching
3)Maximum Long-View area for stand: 150cm
4)Maximum Long-View area for table: 109cm
5)Image acquisition time (3 exposure & auto switching): 18 seconds or less

18. Accessory
1)Service, User Manual
2)Additional Touch-Monitor

▶Type B

1. Wireless Digital Detector (S4343-AW)

1)Detector Type: TFT Type (FPD type-Flat Panel Detector)

2)Receptor Type: Amorphous silicon

3)X-ray conversion: Cesium Iodide scintillator (CsI)

4)Detector Size: 17*17 inch (43*43cm)

5)Active detector matrix: 3036*3040 pixels

6)Pixel pitch: 140㎛

7)DQE: 76% (0.0ip/mm, Typical)

8)Bit Processing: 16bit

9)Spatial Resolution: 3.57ip/mm

10)Installation: Wireless/Tethered

2. Automatic Collimator with Each Blade Control

1)Automatic collimation

2)Blade control: 4-axis motorized control

3)Collimation control: Automatic or manual

4)Lamp type: LED lamp>160lux

3. Patient Table

1)6-Way Movement

2)Table Top Dimension: 2410*812mm

3)Elevating UP/Down Range: 545-900mm

4)Longitudinal (L/R) movement range: ±480mm

5)Transverse (F/R) movement range: ±140

6)Wireless Foot Switch

7)Max. Patient Weight: 350kg(Static load center)

4. Wall Stand

1)Motorized

2)Up/Down range: 280-1850mm

3)Detector tilting: -20˚~+90˚ (Motorized)

4)Detector rotate range: 0˚~+90˚ (Manual and 0˚, 45˚, 90˚)

5)Auto Tracking

6)Grid: 180cm, 85 lines/cm, Carbon cover

7)LED indicator: The change of the light on the column shows the step of the test directly

5. Imaging Workstation (S-Station)

1)Image acquisition time Preview 2 sec, Final image 7 sec

2)Patient name of worklist: Korean or English

3)Automatic image storage with DICOM 3.0 networking capability and transmission, print, CD copy

4)Image processing

-Noise reduction and Edge enhance

-Dynamic range and Variable contrast

5)S-Station

-Monitor: Full HD 23” LED monitor

-CPU: intel Xeon Processor (3.60 GHz)

-HDD: 1TB

-RAM: 16GB

-O/S: Window 10

6. Network (DICOM)

1)DICOM 3.0

2)DICOM Modality Worklist

3)DICOM MPPS

4)DICOM Storage

5)DICOM Grayscale print

7. High Voltage Generator

1)Type: High Voltage Inverter type

2)Max. Output: 80kw

3)mA range: 10~1000mA

4)kVp range: 40~150kVp

5)Line voltage: 380/400VAC, 3-Phase, 50/60Hz

8. X-ray Tube Assembly

1)Tube voltage: 40~150kVp

2)Anode heat storage Capacity: 600KHU

3)Target angle: 12˚

4)Focal spot size: 0.6mm/1.2mm

9. Ceiling-mounted Tube Head unit

1)Vertical travel: 1800mm

2)Transverse travel: Depends on a room size

3)Longitudinal travel: Depends on a room size

4)THU(Tube Head Unit)

- X-ray tube distance and rotation control

-12inch Touch system: Control Ma/kVp/Exposure time

-Confirm all information and x-ray images

5)Fully Automated system

10 Advance Application Software

1)S-VUE:

-Next-generation S-Vue Imaging engine delivers high resolution images through advanced processing and adaptive filtering, which enhance image contrast and sharpness.

11. DAP(Dose Area Product)

-DAP provides patient level dose estimates and recommended exposure

-Also connected to PACS, relevant information is stored on PACS, enabling cumulative dose tracking.

12. AEC(Auto Exposure Control)

13. Whole Spine Package(including Patient Stand)

-S-Guide (with S-Camera view)

-Smart Stitching (Whole spine stitching)

-Spine and long bone imaging

-The X-ray tube and the detector move automatically when a full body image is being captured

14. Etc(Option)

-Touch monitor (wall mounted)

-Voice Guide

B. Consist of

▶Type A

1.	Inverter type high-frequency generator	1Set
2.	X-ray Tube Supporter	1Set
3.	X-ray Tube Assembly	1Set
4.	Auto tracking function	1Set
5.	Auto Positioning Function	1Set
6.	Dose Monitoring system	1Set
7.	Ceiling suspended X-ray tube support	1Set
8.	Digital Flat Panel Detector(17*17inch)	2Set
9.	Bucky Table	1Set
10.	Bucky Wall Stand	1Set
11.	Whole Spine Package	1Set
12.	Collimator	1Set
13.	Imaging Process	1Set
14.	AEC	1Set
15.	Workstation & Monitor	1Set
16.	Software Function	1Set
17.	High-tension Cable	1Set

18.	Accessory	1Set
19.	DICOM 3.0 Package	1Set
20.	Operation & Service Manual	1Set

▶Type B

1.	Wireless Digital Detector(17*17inch)	2Set
2.	High Voltage Generator	1Set
3.	Patient Table	1Set
4.	X-ray Tube	1Set
5.	Automatic Collimator with Each Blade Control	1Set
6.	Ceiling-mounted Tube Head Unit	1Set
7.	Network (DICOM)	1Set
8.	Wall stand	1Set
9.	Imaging Workstation(S-Station)	1Set
10.	Auto positioning	1Set
11.	Smart Stitching (Whole spine stitching)	1Set
12.	AEC (Automatic Exposure Control)	1Set
13.	Advanced Application Software	1Set
14.	Dose Area Product (DAP)	1Set
15.	Whole Spine Package	1Set
16.	Etc (Option)	1Set
	Touch Monitor (wall mounted)	
	Voice Guide	
17.	Operation & Service Manual	1Set

Remarks

1. 무상하자보증기간은 정상가동완료일로부터 3년(종료월 말일) 까지를 기본으로 한다.
   (모든 부품 포함 조건)
2. 해당병원 Interface 연결에 필요한 EMR, PACS 연동시 모든 비용은 업체에서 부담한다.
3. 기술 및 사용부서에서 서비스 요청 시 4시간 이내 정상가동이 가능하도록 지원하며,
불가능할 경우 대체장비를 지원하는 등 정상운용이 가능하도록 지원한다.

4. 조립설치 후 packing Box 및 발생 잔여물은 납품회사 책임 하에 회수 조치한다.

5. 제조일자는 3개월 이내인 제품을 납품하는 것을 원칙으로 한다.

6. 무상하자보증기간 내, 공급된 장비의 부속품이 단종되거나, 수리 불가한 치명적인 결함이 2회 이상 반복되면 동급 이상의 신품 장비로 1개월 이내 즉시 교체해야 한다.

7. 무상하자보증기간 내, 본원 사정으로 불가피하게 장비 이동이 필요 할 경우, 이전 및 설치는 무상으로 지원한다.

8. 장비 설치 및 가동에 필요한 시설관련 사항

1) 장비계약업체는 시설공사 필요 시 계약 전에 장비 설치 및 가동에 필요한 시설에 관한 시방서(공사범위 및 시공주체 등을 상세히 기술함)를 병원 시설부/의공실과 협의 후 작성하여 제출해야 하며 설치 전 그 사항을 반드시 확인하여 설치에 이상 없도록 한다.

2) 장비 반입에 따른 병원의 모든 시설물에 대한 상태 변경 발생 시 장비계약업체는 병원 시설물을 원상태로 책임 시공하여 복원해야 한다.