

공통 규격서

Description		
Dual Head Gamma Camera		Quantity
A. FEATURES		
1.	Dual rectangular detector, completely integrated computer for camera control, data acquisition and processing.	
2.	Provides openness and stability with no gravity sag and no obstruction from detector arms.	
3.	180° and 90° orientations of the detectors for high SPECT and WB scanning efficiency.	
4.	Maximized static and dynamic studies, optimized SPECT and Whole Body Imaging with patient throughput.	
5.	Processing Computer : rapid image acquisition and processing capabilities.	
6.	Detectors : software-driven, including self-diagnostics for quality control enhancement.	
B. CONSTITUTION		
1.	Dual high performance digital detector system	1 Set
2.	Open gantry	1 Set
3.	Collimators (A or B)	1 Lot
4.	Patient handling system for SPECT and whole body	1 Set
5.	Computer System (A or B)	1 Lot
6.	Advanced Option (A or B)	1 Lot
7.	ECG Gate	1 Lot
8.	Accessories	1 Lot
C. SPECIFICATIONS		
1.	Dual high performance digital detector system - Number of detector : Dual - Type(shape) : Rectangular - Crystal Type : NaI(Tl) - Thickness : 3/8" - Total number of PMT : 59 - Detector shielding Material : Pb - Energy range : 35-588 keV or 40-620 keV - Maximum observed count rate(NEMA Standard) : 310kcps or more - Intrinsic energy resolution : < 9.9% or less - Intrinsic Spatial resolution FWHM(CFOV) : 3.8mm or better - Field of View : 53.3 x 38.7cm or equivalent	1 Set
2.	Open gantry - Open Pass through Gantry design - Variable angle : 90°, 180°, 76° or 90°, 180° - Ring rotation : 540° or Equivalent - Max. Rotation speed : 3rpm or better - NCO SPECT setup (Non circular Orbit) : Automatic	1 Set
3.	Collimators (A or B) (A) - Low Energy High Resolution - High Energy General Purpose Collimator - Fanbeam Collimator (B)	1 Lot

	<ul style="list-style-type: none"> - Low Energy High Resolution Sensitivity - High Energy General Purpose Collimator - Fanbeam Collimator 	1 Set
4.	Patient handling system <ul style="list-style-type: none"> - Material of pallet : Aluminum or Carbon - Attenuation at 140keV : < 10% or better - Maximum patient load : 227kg or more 	1 Lot
5.	Computer System (A or B) (A) <ol style="list-style-type: none"> 1) Acquisition and Processing workstation <ul style="list-style-type: none"> (1) Hardware for operator console <ul style="list-style-type: none"> - CPU : Intel Xeon Quad Core CPU - GB of RAM : 8GB RAM - Hard Drive Storage : 2 x 500 GB SATA Hard Drive - CD or DVD Archiving : CD-RW - LCD monitor : 19" dual - DICOM Print and DICOM worklist available - Patient scheduling and data entry - Archive, network and manual filming control - OS : Window 7 (2) Software for operator console <ul style="list-style-type: none"> - Simultaneous acquisition, reconstruction, display and archiving - Realtime reformat for volume navigation - Modality worklist shall be supplied - DICOM Print and DICOM worklist available - Patient scheduling and data entry - View, analyze and QC integrated SPECT data - Archive, network and manual filming control - Workflows are highly automated - Workflows can be modified or customized by the user - Automatic Printing, Archiving Networking to DICOM Workstations ① Acquisition <ol style="list-style-type: none"> a. Planar static and dynamic b. Wholebody c. SPECT, gated, non-gated or both d. Dynamic SPECT e. Wholebody SPECT ② General Processing Software <ol style="list-style-type: none"> a. Quality Control : Automatic and manual motion correction b. Tomo Reconstruction c. 3D Orientation : Free angle reorientation of reconstructed series d. Image Fusion (NM + PET + CT + MR) e. Autocardiac : Cardiac tomo reconstruction f. Flexible Display : Customizable displays ③ Organ Specific Processing <ol style="list-style-type: none"> a. Lung Analysis b. Thyroid Analysis c. Renal Analysis d. Gastric Emptying Analysis e. Hepatobiliary f. Brain Analysis 	1 Set

④ Additional Software	
a. Cedars SPECT Suite	
b. General SPECT half-time imaging	
c. Planar image half-time Processing	
d. Cardiac SPECT half-time imaging	
(B)	
1) Acquisition Workstation System	1 Set
(1) Hardware for SPECT Processing Workstation	
- CPU : 2.8GHz or more	
- Base Memory Installed : 4GB or more	
- Hard Drive Storage : 500GB or more	
- DICOM Print and DICOM worklist available	
- Patient scheduling and data entry	
- OS : Window 7 or Linux	
- Dual Monitors	
2) Processing Workstation System (Xeleris 4DR)	1 Set
(1) Hardware for SPECT Processing Workstation	
- CPU : 3.6 GHz or better	
- GB of RAM : 8 GB or more	
- Hard Drive Storage : 500GB or more	
- DVD, USB Archiving	
- Monitor : Dual 24" LCD or better	
(2) Software for SPECT Processing Workstation	
- DICOM Print and DICOM worklist available	
- Archive, network and manual filming control	
- Patient scheduling and data entry	
- OS : Windows	
- Image viewing and Filming	
- Autotransfer and Auto store	
- Image fusion	
① General Processing Software	1
a. Quality Control : Automatic and manual motion correction	
b. Tomo Reconstruction (Attenuation Correction, Scatter Correction)	
c. 3D Orientation : Free angle reorientation of reconstructed series	
d. Image Fusion	
e. Autocardiac : Cardiac tomo reconstruction	
f. Flexible Display; Customizable Displays	
② Organ Specific Processing	1
a. Lung Analysis	
b. Thyroid Analysis	
c. Renal Analysis	
d. Gastric Emptying Analysis	
e. Hepatobiliary	
f. Brain Analysis	
③ Additional Software	1
a. Cedars SPECT Suite(Auto-Quant)	
b. General SPECT half-time imaging	
c. Cardiac SPECT half-time imaging	
d. 3D registration of fused SPECT-CT, PET-CT, MR images or equivalent	

- MI Segmentation	
- Cross-Timepoint Evaluation	
8) Syngo MM Oncology Engine Pro	1
- PET Dynamic Analysis	
- Multi-Timepoint Evaluation	
- CT Segmentation	
- MM Therapy Interface	
9) SPECT Organ Processing	1
10) SPECT Cedars (QPS, QGS)	1
- Cedars Cardiac Suite for SPECT MPI and LV functions	
11) SPECT Neurology Engine	1
- Display and quantification of SPECT brain scans	
- HMPAO and ECD Normal databases	
11) Software version upgrade to next the level of conventional Syngo.Via system	
12) Providing Ram upgrade solution of conventional reading computer	
(B)	
1) Simulation toolkit	
- Improved resolution and reduce noise of 99mTc, 123I, 111In, 67Ga SPECT studies	
- Enhanced visual clarity	
- Test IQ as function of counts using Poisson re-sampling tool	
2) Easy scan range setup	
- along the full length of the table, touch buttons every 2 cm, markings every 10 cm	
- One touch set up patient scan range	
3) Advanced Recon Algorithm for Planar	
- Static and Whole-Body scanning using " Clarity 2D" post processing for improved small lesion detectability and up to 25% time or dose reduction	
4) Advanced Recon Algorithm for SPECT	
- SPECT and Gated SPECT scanning using the "STEP and SHOOT Continuous" mode for improved small lesion detectability and up to 25% time or dose reduction	
5) Whole Body Fast Scanning in Continuous mode	
- Extended Range of Pallet velocity : 30 - 200cm/min	
6) MDC - Motion Detection and Correction	
- Automated SPECT motion correction	
- Sinogram and linogram images for QC analysis	
- Tools for manual adjustment and correction	
7) Cardiac Morphing	
- Delivers enhanced perfusion image quality for Gated SPECT data	
- Overcomes non-uniform blurring of the myocardium due to cardiac motion, enhancing the visual clarity of the images	
- Based on elastic summation of tomograms representing all bins in a cardiac cycle	
8) Volumetrix MI	
- A tomographic data viewing and processing package consolidated application for SPECT and PET data processing with or without anatomical data (CT or MR), capable of Multi-SPECT sessions pasting, follow up on multiple studies and input of anatomical oblique slices.	
9) Volumetrix 3D	
- Optional software which integrates 3D Fusion into nuclear medicine workflow, bringing together the benefits of advanced 3D visualization with the productivity of traditional 2D image analysis.	
10) Volumetrix IR	
- Optional software providing a choice of DICOM 3.0 CT data sets to be registered to NM or PET data sets in the NM workflow	
11) Providing latest Software version upgrade of convetional Xeleris systems and hardware replacement to meet the latest software version if needed	

7.	ECG Gate	1 Lot
8.	Accessories	1 Lot
	1) Head Cushion	1
	2) PAD-Patient	1
	3) Armrest panel Whole body	1
	4) Body Wrap	1
	5) O/S manual	1
	6) Room interior (조정실, 촬영실, 차폐 포함)	1
	7) Auto door (촬영실)	1
	8) Air conditioner (냉방 전용)	2
	9) 컬러 복합기	1
	10) 공기청정기	1
	11) 제습기	1
	12) Desk	2
	13) Chair	5

D. REMARKS

1. Installation

Contractor is responsible for installation of this equipment at customer's premise.

2. Warranty

3 Years

3. Manual

Operation & Service Manual

4. Compatibility

W/S should be fully compatible with installed W/S for maintaining old data sets.

위와 같이 일반 경쟁 입찰을 의뢰합니다.

PS : 입찰 후 최저가 응찰 업체를 낙찰자로 결정함.

2021. 1. 28

사용부서명 : 핵의학과

부서장 실장 성명:

과장 성명:

기술부서명 : 관리부 의용공학과

담당자 : 서보경

(인)