



Ministry of Health
Directorate of Biomedical Engineering
Technical Specifications for Radiographic Equipment



Item Description: Spiral Multi Slice CT Scanner (512 Slice)
Item No: (1)

Class No:
Qty: (1)

No.	Technical Specifications	Min MOH Requirement	Bidder Offer
1	Manufacturer	Please specify manufacturer and country of origin & country of manufacturer	
2	Model number	Please specify model number of the offered equipment	
3	Safety standard	FDA approval or CE marking (USA brand must have FDA)	
4	Type	Multi-slices, (512) slices/Rotation with spectral	
5	GANTRY: (for conventional mode) Geometry	Continues Rotating slip ring, multi slices	
	Number of Acquired	Minimum 256 Slices	
	Number of Reconstructed	Minimum 512 slices	
	Number of Detector rows	≥ 192	
	Number and type of detector elements	50000(±%10) Solid-state, higher values are preferred	
	Detector coverage	80 mm (test depending)	
	Scan time, 360°	0.28sec/360°	
	Minimum slice thickness	0.6mm ±%10	
	Gantry tilt Gantry apertur	± 30° Mechanical or digital	
	localizer	Laser or light beam	
6	X-RAY tube:	Should match the generator power (Not less than 7 MHU or Equivalent)	
	Cooling system	Oil and air cooling	
	Tube focal spot, mm	Best available (large & small)	
7.	X-RAY Generator: (for conventional mode)	≥100kW±10%	
	kW		
	mA range	10 – 1000 mA±10%	
	kVp range	80-150Kv±10%	

Note: Bidder must answer with YES or NO in the "BIDDERS OFFER" Field

Equipment Distribution Locations: مستشفى الاميرة بسمة الجديد

No.	Technical Specifications	Min MOH Requirement	Bidder Offer
8	Spiral scanning: (for conventional mode) Max scan cycle time	Full body scan cycle time should be done without tube over heating	
	Max scan volume(cm)	≥200±10%	
	Spatial resolution	≥15LP/cm	
	Reconstruction time per image	0.1 sec ±10%	
	Isotropic Z-Axis Resolution	Please specify the minimum slice thickness	
	Temporal Resolution	Please specify best value	
	Spiral Protocols Techniques	Please specify	
9	Patient table: Minimum vertical travel	50cm±10%	
	Scannable range	200 cm±10%	
	Max load capacity with accuracy	Not less than 200 kg	
	Accessories	Quality and calibration phantoms, head & coronal head holders, bed mattress arm and knee support	
10	Image processing: (for conventional mode) Computer system	Included To be supplied Originally from the manufacturer	
	Max scan FOVs	Up to 50 cm ± 10 %	
	Reconstruction matrixes	512x512(minimum)	
	Reconstruction time per slices	0.1sec.± 10 %	
11	Display: Monitor size	Not less than 19" Color	
	Matrixes pixels	1024x1024	
	No. of monitors at console	(2) excluding the workstation	
	Range of CT numbers Image enlargement	larger ranges are preferred Up to 8 or more	
12	Image storage: Hard disk capacity No .of online images(uncompressed 512x512)	Not less than 1 TB Larger No. is preferred.	
	Archival Storage (optical disc)	Super DVD	

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Cont... SPIRAL MULTI SLICE CT SCANNER (512)

14.	Scanning modes	<ul style="list-style-type: none"> - Planner - Axial - Continuous dynamic - Spiral - spectral 	
15.	Intercom system	Bi-directional	
16.	Patient observation monitor	Included	
17.	Full DICOM	Activated & included for both console & workstation	
18.	A separate independent workstation with high storage capacity, Super DVD writer and high resolution LCD monitor	Included and supplied originally from the manufacturer	
19.	Contrast media injector	<ul style="list-style-type: none"> • Angiography designed • Electromechanical syringe • Electrical and automatic volume stop mechanism. • Must accept syringe barrel heater • Pedestal amount or hung • Dual head Auto Injector • 100 boxes of disposable syringes included with patient tube 	
20.	Radiation Dose Modulation	Included	
21.	ECG Monitor	Included and should be integrated ECG monitor either in the gantry or computer / tablets. To be used for cardiac exams triggering.	
22.	Chair with castors	Quantity (8). Heavy duty adjustable height	
23.	UPS	Included as recommended by the manufacturer	
24.	Power Supply	<ul style="list-style-type: none"> - Powerinputtobe3phase380VAC,50Hz. - Resettable over current breaker & spike protector shall be provided 	



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