

**Amendment 4 dt.08.10.2020 to Tender Notice No.: 3.30/APMSIDC/TECHNICAL/
2020-21, Dt: 18.09.2020**

Revised Specifications for CT scan – 16 Slices

The system should be latest, State-of-the Art system with latest release in the worldwide market. Vendors should have at least 10 installations in South India to support after sales capability.

The spiral CT scanner system for high-resolution whole-body scanning. The instrument must be capable of acquiring minimum 16 slices per 360° rotation. The system must have latest iterative reconstruction technique in raw data space.

Minimum Technical specification

Scan Time –

a. The scan time for one gantry rotation of complete 360° rotation should be 0.8Sec or less.

Scanning Capability –

a. Pediatric and infant base protocols shall be available based on the infant weight 80 KV or less. Station must be offered.

b. Real time contrast monitoring acquisition with auto scan initiation protocol and with auto injector trigger.

c. High Contrast Resolution should be at least 15 lap/cm for axial and spiral scan at 2 % MTF

d. Low contrast resolution should be at least 3 mm at 3%

Gantry -

a. **Aperture of 65 cm or more**

b. Auto Positioning Lights

c. Should have FOV of at least 45 cm or more

d. Physical/Digital Gantry Tilt must be provided with Tilt \pm 30

Detectors –

a. Data acquisition system capable of acquiring 16 Slices or more per 360° rotation with 16 or more rows of detector. Total coverage of the detectors must be 11 mm or more.

Slice Thickness –

16 slice acquisition with 32 slice reconstruction, minimum thickness of 0.80 mm or less

Pitch Factor (Volume Pitch) -

a. Should be variable between 0.6 - 1.5 or better and should be user selectable or automated. Specify all possible pitch selections.

Scan Time and length in Spiral/Helical Technique -

a. Should be at least 100sec continuous

X-Ray Generator -

a. High Frequency type

b. Power output: 28 KW or higher Voltage Selection: 80-130 K or wider

c. mA Range: 230 mA or more

X-Ray Tube -

a. Anode Heat Storage Capacity- Minimum of 3.5 MHU or more

b. Anode Heat Dissipation: Specify the minimum value in KW.

Patient Table -

a. Carbon Fiber Tabletop with Load carrying capacity 150 Kg with 1mm positioning accuracy.

b. Horizontal Table speed preferably 100 mm/sec.

c. Metal free scan able range of 120 cm or more

d. Facility of positioning aid for horizontal iso-centric positioning of the patient.

e. Elevating table.

Image Reconstruction -

a. Reconstruction Field of View Range: 5-45 cm

Image Display -

a. Image Area Matrix Dimension: 1024 x 1024

Image Reconstruction -

Image reconstruction capability should be at least 10 images/sec with simultaneous reconstruction facility.

Storage Capacity 1 TB or more (or 500 GB internal + 1TB external can be provided)

System should have latest iterative reconstruction technique in raw data space.

Operator Console -

It should have 19" or more high-resolution LCD monitor OR two 18" separate monitors.

The system should be user friendly with all functions menu driven. It should be modern user interface.

All functions including scanning image reconstruction, film documentation, archiving, transferring, MPR Angiography maximum intensity projection, 3D volume rendering, 3D SSD, CT Angio, CT Urography, vessel analysis, should be possible on console MIP, CT Angio software with quantitative vessel analysis must be provided.

Computer System & Image Processor -

64 Bit main CPU with at least 8 GB RAM memory or better

High speed CPU with latest software should be provided.

Hard Disc of 1 TB or more

Image storage in 512 x 512 matrix for storage of 75,000 images or more.

DVD/CD archive capacity with DICOM viewer software default.

Image Processor: Operating system shall be windows/ Linux based

The image reconstruction time should be at least 10 images /sec or better for all types of acquisition modes including Cone Beam Correction, Neuro Imaging studies.

Software -

Should have DICOM 3.0 compatibility

Volume rendering technique with axial cross reference imaging along with measurement tools on volume rendered image 3D, 3D small volume measurement package MIP slab viewer

Patient Communication System -

An integrated intercom and Automated Patient Instruction System (API) should be provided

Others -

System should have PACS interface ready without any new hardware or software.

Fully DICOM 3.0 compliant including

DICOM Modality work list, with automatic procedure selection

Capability from HIS-RIS interface

A Barcode reader for entering patient data from HIS RIS must be possible.

Dose saving protocols –

Latest dose saving protocols must be available

CT Fluoroscopy for Biopsy:(optional, to be quoted if available) -

Continuous CT (CCT) biopsy mode to enable the clinician to perform scans from the gantry room using a foot pedal and view the images on a cart-mount, in room monitor for guidance planning and monitoring. Each scan exposure is a 240° axial.

Reconstructed images may be viewed as one image or three images.

Accessories -

Lead Glass of size 100 X 150 cm

Single Head Pressure Injector (300psi) with 100 syringes

Patient Trolley

The equipment should be new and unused. The manufacturing date should not be more than 180 days when it would reach the consignee address.

All patient positioning accessories including head rest

Standard & Safety -

Should be AERB approved. Quoted model release should be within 3 years. Please submit the documents for the same.

Workstation: - Price to be quoted separately and will be taken for evaluation.

Standalone multimodality independent workstation from the same manufacturer.

1 TB Hard disc & 8 GB RAM

Should be capable of simultaneous viewing all post processing functions and filming independently without the help of main console. Two-way data transfer between the operative console and the satellite workstation should be standard.

Image evaluation tools: All advanced post processing Software like MIP, MPR, VRT, SSD, IMAGE FUSION, Neuro Subtraction or equivalent CT Angio for both brain and body, Virtual endoscopy, Vessel analysis, Vessel segmentation.

Suitable UPS for the entire system - including CT scanner, console, and additional workstation with sufficient rating for 15 minutes back up.

Dry / Laser Imager

Resolution: 16 bits/ 500 dpi or more with minimum three trays.

Support Multiple Film Sizes: one of which must be 17"x14".

DICOM Compatible

One branded Personal Computer - i7 or latest with laser printer of latest configuration

View boxes - LED type of 14”X17” 3 film type.

Light weight vinyl Lead Aprons - of 0.5 mm lead equivalence.

warranty –

Three years for CT scanner system including X ray tube and all accessories.

The offer should be accompanied by original data sheet/brochure of the product

The cost of the CMC (Comprehensive maintenance Contract) from 4th year to 10th year inclusive of labor, spares and X ray tube is to be quoted. The CMC should cover all vendor items and local accessories.

Should be AERB approved model

Turnkey works : (for 1000 Sft area)

The bidder shall survey the site, prepare a lay out diagram, attached it in the tender at Annexure - X. The hospital will arrange to provide a clear site (Annexure – X) with the rated power supply as required by the successful bidder. It shall be the responsibility of the bidder to alter the site (Annexure – X), provide false ceiling, internal electrical wiring, Lights, Air conditioners – Two tons X Four no., wall tiles up to false ceiling, vinyl floor work, trench for the cable, 100 A tripper box with on / off switch for the CT scanner with double earth pit, lead lined doors with at least 2 mm lead frame for the lead glass, radiation safety lights, foundation platform for the CT scanner, The cost of the turn key works shall be included in the offer.

Ductable Air Conditioner as per requirement and need of the equipment at site to be provided.

General

(In tender document, wherever consortium is there, it can be read as “consortium / co bidder”)

Sl. No	Page No	Tender Condition	Can be read as
1.	12	<p>Section - II : Instruction to bidders</p> <p>2. Eligible Bidder</p> <p>This invitation for Bids is open to all Manufacturer company or their affiliate company or consortium of maximum two partners, who fulfill the eligibility criteria mentioned in the Clause 13 and who meet qualification criteria mentioned in the Section VI.</p>	<p>Section - II : Instruction to bidders</p> <p>2. Eligible Bidder</p> <p>This invitation for Bids is open to all Manufacturer company or their affiliate company or consortium/co bidder of maximum two partners, who fulfill the eligibility criteria mentioned in the Clause 13 and who meet qualification criteria mentioned in the Section VI.</p>
2.	54	<p>C. Manpower at respective locations</p> <p>HR Partner of consortium will have MoU with APMSIDC for manpower</p>	<p>C. Manpower at respective locations</p> <p>HR Partner of consortium/co bidder will have MoU with APMSIDC for manpower</p>
3.	57	<p>Section – VI</p> <p>Pre – qualification criteria</p> <p>I Terms of Qualification for Equipment:</p> <p>The bidder shall be a Company registered under companies act 1956 / 2013. The bidder can participate as Consortium with maximum of 2 In case of consortium,</p>	<p>Section – VI</p> <p>Pre – qualification criteria</p> <p>I Terms of Qualification for Equipment:</p> <p>The bidder shall be a Company registered under companies act 1956 / 2013. The bidder can participate as Consortium/co bidder with maximum of 2 In case</p>

			of consortium/ co bidder,
4.	57	<p>Section – VI Pre – qualification criteria I Terms of Qualification for Equipment:</p> <p>Consortium agreement as per Annexure-IX and Format for Power of Attorney for Lead Member of Consortium as per XII-C</p>	<p>Section – VI Pre – qualification criteria I Terms of Qualification for Equipment:</p> <p>Consortium/ co bidder agreement as per Annexure-IX and Format for Power of Attorney for Lead Member of Consortium/ co bidder as per XII-C</p>
5.	76	<p>Section – XII – C</p> <p>Format for Power of Attorney for Lead Member of Consortium</p>	<p>Section – XII – C</p> <p>Format for Power of Attorney for Lead Member of Consortium/ co bidder</p>
6.	93	<p>Annexure IX</p> <p>Format for Joint Bidding Agreement / Consortium Agreement</p>	<p>Annexure IX</p> <p>Format for Joint Bidding Agreement / Consortium/ co bidder Agreement</p>
7.	94	<p>2.Consortium</p> <p>The Parties do hereby irrevocably constitute a consortium (the “Consortium”) for the purposes of jointly participating in the Bidding Process for the Project.</p>	<p>2. Consortium/ co bidder</p> <p>The Parties do hereby irrevocably constitute a consortium/ co bidder (the “Consortium/co bidder”) for the purposes of jointly participating in the Bidding Process for the Project.</p>
8.	94	<p>3.Covenants</p> <p>The Parties hereby undertake that in the event the Consortium is declared the Selected Bidder and awarded the Project, it shall enter into an Agreement with the Client and for performing all its obligations as mentioned in the Tender.</p>	<p>3.Covenants</p> <p>The Parties hereby undertake that in the event the Consortium/co bidder is declared the Selected Bidder and awarded the Project, it shall enter into an Agreement with the Client and for performing all its obligations as mentioned in the Tender.</p>
9.	94	<p>4.Role of the Parties</p>	<p>4.Role of the Parties</p>

		<p>The Parties hereby undertakes that Party of the First Part shall be the Lead Member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium throughout the contract period.</p>	<p>The Parties hereby undertakes that Party of the First Part shall be the Lead Member of the Consortium/ co bidder and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium/ co bidder throughout the contract period.</p>
10.	95	<p>6. Representation of the Parties</p> <p>B. The execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or Authority action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:</p>	<p>6. Representation of the Parties</p> <p>B. The execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or Authority action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member/co</p>

			bidder is annexed to this Agreement, and will not, to the best of its knowledge:
11.	96	<p>Termination</p> <p>This Agreement shall be effective from the date hereof and shall continue in full force and effect until the Termination of the Agreement with Client. However, in case the Consortium is either not prequalified for the Project, or does not get selected for award of the Project, this Agreement will stand terminated upon return of the Bid Security by the Client to the Lead Bidder</p>	<p>Termination</p> <p>This Agreement shall be effective from the date hereof and shall continue in full force and effect until the Termination of the Agreement with Client. However, in case the Consortium/ co bidder is either not prequalified for the Project, or does not get selected for award of the Project, this Agreement will stand terminated upon return of the Bid Security by the Client to the Lead Bidder</p>