

AMENDMENT NO. 1 DATED 18.06.2011

Sub: Amendment to Technical Specification for 16 Slice CT Scan machine

Ref.: Tender No. HLL / PCD / LHDC / CT-SNM / 11-12 dated 01.06.2011

Tender Para 1.2 - Tilt of +/- 30 degree selectable in 0.5 degree increment

Read As Amendment Para 1.2: Gantry tilt +/- 30 degree.

Tender Para 1.4 - Acquisition of 0.625 mm ×16/rotation and 1.25 mm ×16/rotation and reconstruction slice width 0.5 mm, 1 mm, 2 mm, 3 mm, 4 mm, 5 mm, scan field acquisition of 180mm, 240 mm, 320 mm, 390 mm, 500 mm and selectable in 1 mm intervals on every scan area

Read as Amendment Para 1.4 :- Acquisition of **0.75** mm ×16/rotation and **1.5** mm ×16/rotation and reconstruction slice width **0.625** mm, 1 mm, 2 mm, 3 mm, 4 mm, 5 mm, scan field acquisition of 180mm, 240 mm, 320 mm, 390 mm, 500 mm and selectable in 1 mm intervals on every scan area

Tender Para 1.5 - Solid State slice selectable multi row (SSMD) GD OS selectors with 800 active

elements/row with 16 centre rows of 0.5 mm each and 12 outer rows of 1 mm each, 1600 active channels with Q/Q offset mechanism, 1 set of reference detectors, beam limiting collimators and 1200 views/sec. The detector should not require frequent calibration.

Read as Amendment Para 1.5 : Solid State detector. Mention number of elements/row.

Tender Para 2.2 - Helical scan facility of 100 seconds continuous rotation scan coverage in Axial direction of 175 cm, scan plane facility for up to 10 scan plans under a single examination, multi-directional, multiple, zoom helical facility, selectable pitch with 0.1 increments in the range of 0.625 to 1.0 in sixteen row acquisitions, 0.625 to 1.5 in steps of 0.125 in case of four row Acquisitions. Real exposure control (Real EC) to 3D modulation of the X-ray current for optimum dose

Read As Amendments Para 2.2 : - Helical scan facility of 100 seconds continuous rotation scan coverage in Axial direction of **150** cm, scan plane facility for up to 10 scan plans under a single examination, multi-directional, multiple, zoom helical facility, selectable pitch with 0.1 increments sixteen row acquisitions, **0.75** to 1.5 in case of four row acquisitions. Real exposure control (Real EC) to 3D modulation of the X-ray current for optimum dose

Tender Para 2.3 - Real time Helical Reconstruction of 12 image/sec and regular reconstruction of 10 image/ sec/ Xstream FX reconstruction engine.

Read as Amendments para 2.3: - Real time Helical Reconstruction of **6** image/sec or **more** and regular reconstruction of **6** images **or more**/ sec/ Xstream FX reconstruction engine or equivalent.

Tender Para 2.4 - Helical reconstruction in steps of 0.1 mm of the table position reconstruction method in multi slice cone beam technology (MUSCOT) applicable to four row acquisition and true cone beam technology (TCOT) applicable to sixteen row acquisition with Tilt Helical in Multi slice mode. Sure Start Technology to track contrast medium in 3no: ROI and trigger scans. Couch top speed in helical mode selectable from 0.8 mm/ sec to 96 mm/ sec

Read as Amendments para 2.4: - Helical reconstruction in steps of 0.1 mm of the table position reconstruction method in multi slice cone beam technology (MUSCOT) **or equivalent** applicable

to four row acquisition and true cone beam technology (TCOT) **or equivalent** applicable to sixteen row acquisition with Tilt Helical in Multi slice mode. Technology to **track Bolus** or **contrast medium** in 3no: ROI and trigger scans. Couch top speed in helical mode selectable from 0.8 mm/ sec to 96 mm/ sec

Tender Para 2.5 - Non-Helical facility with scan mode, scan and view mode. Scanoscopy facility with real time construction of the image with a programmable range from 200 mm to 1750 mm in Axial direction.

Read as Amendments para 2.5 - Deleted

Tender Para 2.6 - Dynamic scan facility with 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 2.0, 3.0, 4.0 per 50 degree rotation programmable facility of and up to 1 hour, program facility up to 10 scans. Scan plan interval of minimum 1 second programmable in steps of 0.1 sec, scan start delay time of minimum 0.5 sec, scan rate of 133 scans/100 seconds. Partial image reconstruction in steps of 0.1 sec, reconstruction time of 0.5 sec and multi position dynamic scan with 8 positions.

Read as Amendments Para 2.6 - Deleted

Tender Para 3 - Central Processing Unit with Windows operating system with 64 bit processors, hard disk storage capacity of 200 GB or more, RAW data storage capacity of 3600 rotations, image storage capacity of 1,00,000 images on the main console. Disk expansion facility should be available. CDR/DVDR storage in DICOM format of up to 1000 images. DVD archival with 9.4 GB capacity and 16,000 images. System RAM size: 3GB or more.

Display matrix size 1024 × 1024

Read as Amendments Para 3 - Central Processing Unit with Windows/**Linux** operating system with 64 bit processors, hard disk storage capacity of **140** GB or more, image storage capacity of 1,00,000 images on the main console. Disk expansion facility should be available. CDR/DVDR storage in DICOM format of up to 1000 images. DVD archival with 9.4 GB capacity and 16,000 images. System RAM size: 3GB or more.

Tender Para 4.1 - High Frequency X-Ray Generator of 40 KW or more, in built in the gantry with transmission through low voltage slip rings, selectable KV of 80, 100, 120 or more, selectable mA in steps of 10 mA from 10 mA to 300 mA. X-Ray

Read as Amendments Para 4.1 - High Frequency X-Ray Generator of **50** KW or more, in built in the gantry with transmission through low voltage slip rings, selectable KV of **90**, 100, 120 or more, selectable mA in steps of 10 mA from **20** mA to **345** mA. X-Ray

Tender Para 4.2 -X-Ray fan angle of 49.2 degrees with standard geometry

Read as Amendments Para 4.2 - Deleted

Tender Para 4.3 - X-Ray tube capacity of 4 MHU or more

Read as Amendments Para 4.3 - X-Ray tube capacity of **5** MHU or more

Tender Para 6.2 -Smartprep contrast bolus timing software

Read as Amendments Para 6.2 - Smartprep **or equivalent** contrast bolus timing software

Tender Para 6.3 -Protocols II, 4000 protocols

Read as Amendments Para 6.3 - Deleted

Tender Para 9 -High Frequency Voltage generator with 350 mA or more

Read as Amendments Para 9 - Deleted

Added Para 10 (A) - Coronary vessel analysis, relative perfusion, Cardiac function, calcium scoring, IVUS kind of view etc, should be demonstrated to user

Tender Para 11 -CT Perfusion 4.0 software (multi organ) for AW system

Read as Amendments Para 11 - CT Perfusion software (multi organ) for Work station

Tender Para 14.6 - Work Station – 1 no

Read as Amendments Para 14.6 - Deleted

Added Para 17 - Stabilizer for complete system (Price to be quoted separately. Also indicate Capacity and Make).

Added Para 18 - UPS for computer system with 30 min backup (Price to be quoted separately. Also indicate Capacity and Make).

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Note