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June 3, 2026

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To: **Project Director**
Pakistan Institute of Medical Sciences (PIMS)
Sector G-8/3, Islamabad

Sub: Formal Grievance and Request for Revision of Technical Specifications — Tender for Purchase of High-End CT Scan Machine (Stroke Powered by AI Software), PIMS FY 2026-27.

Dear Sir,

BIOS in its capacity as the authorized distributor of **M/s. United Imaging Healthcare (UIH)**, respectfully submits this formal grievance letter pursuant to the Standard Bidding Document and applicable provisions of the Public Procurement Regulatory Authority (PPRA) Rules 2004, specifically Rule 12 (Specifications) and Rule 32 (Evaluation Criteria), which mandate that procurement specifications be technically neutral, non-discriminatory, and based on objectively verifiable performance criteria.

This letter pertains to the bidding document issued by the Purchase Department, PIMS, for the **'Purchase of High-End CT Scan Machine for Stroke Powered by AI Software'** (hereinafter 'the Tender'), with bid submission through EPADS v2.0.

Upon careful technical review of the Tender's Section VI (Technical Specifications) against the published datasheets of all major international CT manufacturers including United Imaging Healthcare (UIH), GE Healthcare, Siemens Healthineers, and Canon Medical Systems. BIOS has identified specific technical thresholds that:

1. Are set at values that are met as standard by only one commercially available system in the global market;
2. Are not grounded in any published clinical guideline, international procurement standard (WHO, IAEA, IEC 60601-2-44), or evidence-based minimum threshold for the stated clinical application (stroke and cardiac CT);
3. In two cases (temporal resolution ≤20 ms; reconstruction speed ≥100 IPS), constitute specifications that no currently marketed CT system from any manufacturer can meet as a standard configuration, rendering the tender potentially non-competitive;
4. Collectively reflect a pattern of specification calibration that corresponds closely to the product datasheet of a specific manufacturer, constituting a commercially non-neutral tender document.

BIOS respectfully submits that this pattern is inconsistent with the principle of open, fair, and transparent procurement enshrined in the PPRA Rules and the Public Procurement Act 2010. We do not make this submission to impugn the integrity of the committee, but to bring material technical inaccuracies to the committee's attention before the bid submission deadline, affording the committee the opportunity to issue a corrigendum and ensure genuine competition.

A comprehensive Technical Specification Grievance Matrix (Annex A) is attached to this letter, presenting each contested specification with the corresponding global standard, identified gap, clinical justification, and requested revision in tabular format for ease of committee review.

The following seven specifications are formally contested. Full clinical and technical justification is provided in Annex A:

- **Spec 16 — Gantry Rotation ≤0.24 sec:** Met as standard ONLY by GE Revolution Apex Elite (0.23 sec). Clinically equivalent performance is achievable at 0.25 sec with AI motion correction.
- **Spec 26 — Tube Current ≥1,250 mA:** UIH reaches 833 mA; Canon 900 mA. Neither GE (1,300) nor Siemens (1,300) shortfall applies to UIH. Modern AI reconstruction delivers equivalent image quality at lower mA. No clinical evidence base for 1,250 mA minimum in a 320-row system.
- **Spec 7 — Spatial Resolution ≥32 lp/cm @ MTF 0%:** 32 lp/cm is the verbatim Siemens SOMATOM Force UHR specification. GE standard is 21.4 lp/cm. UIH standard is 22 lp/cm. No clinical guideline mandates 32 lp/cm for cardiac or stroke CT.
- **Spec 13 — Temporal Resolution ≤20 ms:** Physically impossible for any current single-source CT. GE = 66 ms; Siemens = 66 ms; UIH = 25–125 ms. This specification, if applied uniformly, disqualifies all vendors including GE and Siemens.
- **Spec 53 — Reconstruction Speed ≥100 IPS:** Not met by any vendor: GE = 65 fps; Siemens = 70 IPS; UIH = 60 IPS; Canon = 80 IPS. This is a workflow parameter with no clinical image quality relevance.

In light of the above, BIOS respectfully requests the Bid Evaluation Committee to:

1. Issue a formal corrigendum/addendum prior to the bid submission deadline, revising the seven contested technical specifications in accordance with the proposed amendments detailed in Annex A;
2. Provide the committee with the source documentation upon which the original technical specifications were based, to allow verification of their neutrality and compliance with PPRA Rule 12;
3. Confirm, in writing, whether any pre-qualification consultation was conducted with specific vendors prior to issuance of the Tender and, if so, provide disclosure of the same;
4. Grant BIOS the opportunity to present a technical demonstration of the UIH uCT 960+ against the revised specifications, if the committee deems this appropriate.

BIOS wishes to emphasize that this grievance is submitted in a spirit of constructive cooperation and in the interest of ensuring that PIMS receives the most clinically appropriate, cost-effective, and competitively procured CT system. We remain committed to the highest standards of transparent engagement with this procurement process.

Should the committee require any technical clarification, additional documentation, or a formal presentation to support this grievance, we remain available at the committee's convenience.

Yours sincerely,

B I O S Islamabad

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Arshad Ullah Khan
Country Manager CS & Head of Office, Islamabad

Enclosure: Annex A — Technical Specification Grievance Matrix

ANNEX A — TECHNICAL SPECIFICATION GRIEVANCE MATRIX

Spec Ref.	Category	Tender Specification (As Written)	Global Industry Standard / Peer Benchmark	Identified Gap / Skew	Clinical & Technical Justification for Revision	Requested Amendment
Spec 16	**Gantry Performance**	*Minimum gantry rotation time ≤0.24 sec*	Industry standard for a single-source 320-row CT: 0.25–0.35 sec (Canon PRISM: 0.275 s opt; UIH uCT 960+: 0.35 s std; Siemens Force: 0.25 s std). Only GE Revolution Apex Elite achieves 0.23 s as standard.	The 0.24 sec threshold is met exclusively by the GE Revolution Apex Elite (0.23 sec) as a non-optional, standard feature. All other major OEMs fail this threshold unless optional upgrades are purchased. The UIH uCT 960+ standard minimum is 0.35 sec; even with optional 0.25 sec upgrade, it fails.	The 0.24 sec threshold has no established clinical basis as a hard minimum. For coronary CT angiography (CCTA), cardiac motion is adequately frozen at ≤0.35 sec with modern AI motion correction (e.g., UIH CardioCapture, Canon SURECardio), as validated in peer-reviewed literature (Leipsic et al., JACC Cardiovasc Imaging 2011; Achenbach et al., JACC 2010). The 2022 SCCT Guidelines for performance of CCTA do not mandate sub-0.25 s rotation as a minimum system requirement. Setting the threshold at 0.24 sec without qualification for AI motion correction artificially excludes clinically equivalent systems and has no precedent in international procurement standards (IAEA, WHO Medical Equipment procurement guidelines).	Revise to: 'Minimum gantry rotation time ≤0.25 sec with AI-based cardiac motion correction technology demonstrated on clinical evidence.' This aligns with the actual clinical requirement (artefact-free cardiac imaging) rather than a mechanical threshold that maps to a single vendor.
Spec 26	**X-Ray Tube / Generator**	*Tube current (mA) range: 20–1,250 mA or better*	Standard single-source 320-row CT mA capabilities: UIH uCT 960+: 10–833 mA; Canon PRISM: 10–600 mA std / 900 mA opt; GE Revolution Apex Elite: 10–1,300 mA; Siemens Force (single source): 20–1,300 mA.	The 1,250 mA upper bound precisely matches GE Revolution Apex Elite (1,300 mA) and Siemens Force (1,300 mA). UIH uCT 960+ reaches 833 mA. Canon PRISM reaches only 900 mA. No clinical indication exists for routinely requiring 1,250 mA in a 320-row volume CT system.	High mA was necessary in earlier CT generations to compensate for limited detector sensitivity and the absence of iterative/deep-learning reconstruction. In a modern 320-row CT with model-based iterative reconstruction (AIIR, AiCE, ADMIRE), equivalent diagnostic image quality at equivalent or lower dose is achievable at 600–900 mA (Willemink et al., Radiology 2013; Vardhanabhuti et al., Clin Radiol 2012). The UIH uCT 960+ with AIIR reconstruction produces diagnostic-quality images at tube currents well below 833 mA in routine clinical use. Mandating 1,250 mA without acknowledging modern low-dose reconstruction technology constitutes an outdated and discriminatory technical	Revise to: 'Tube current range: minimum 10 mA to maximum ≥800 mA, with automatic exposure control (AEC) and AI-based iterative reconstruction for dose optimisation.' This captures the clinical intent (adequate dose range with dose management) without arbitrarily locking out modern low-mA systems.

					threshold that privileges legacy high-output generators over contemporary systems proven to deliver equivalent image quality at lower mA.	
Spec 7	**Image Quality — Spatial Resolution**	*Spatial resolution ≥32 lp/cm at 0% MTF*	Standard 320-row CT spatial resolution at 0% MTF: UIH uCT 960+: 22 lp/cm; GE Revolution Apex Elite: 21.4 lp/cm; Canon PRISM: ~21–25 lp/cm. Only Siemens SOMATOM Force reaches 32 lp/cm — exclusively with the optional Ultra High Resolution (UHR) detector upgrade.	32 lp/cm at MTF 0% is the verbatim specification of the Siemens SOMATOM Force with its UHR option (confirmed in Wainscot Media Cardiac CT Systems comparison, 2026). No other 320-row CT system — including the GE Revolution Apex Elite — meets this figure as a standard specification. The UIH uCT 960+ standard MTF 0% is 22 lp/cm; with AIIR deep-learning reconstruction the effective resolution is substantially enhanced	The PIMS tender specifies a stroke and cardiac CT application. The clinical literature does not establish 32 lp/cm as a minimum requirement for coronary artery disease assessment, stroke evaluation, or perfusion imaging. The 2022 SCCT/ACR CT Cardiac Imaging Guidelines reference spatial resolution in terms of clinical detectability of coronary stenosis (≥50% stenosis detection sensitivity/specificity) — not raw MTF lp/cm thresholds. Standard CT systems at 20–24 lp/cm, when combined with modern AI reconstruction, achieve equivalent or superior in-stent and plaque visualisation relative to older high-resolution systems at higher dose (Albrecht et al., Invest Radiol 2019). Furthermore, specifying MTF at the 0% threshold (noise cutoff) rather than the clinically standard 10% or 50% MTF is itself an unusual benchmark that selectively benefits ultra-high-resolution configurations.	Revise to: 'Spatial resolution: ≥20 lp/cm at MTF 0% (standard mode), with AI-assisted reconstruction capable of demonstrating improved spatial resolution compared to standard FBP baseline.' This reflects the actual diagnostic requirement and allows all modern 320-row systems to compete on clinical merit.
Spec 13	**Temporal Resolution**	*Temporal resolution ≤20 ms*	No commercially available single-source CT scanner achieves Native 20 ms temporal resolution. GE Revolution Apex Elite: 66 ms. Siemens SOMATOM Force (single-source	≤20 ms temporal resolution is physically unachievable by any currently marketed single-source CT scanner from any manufacturer. Even dual-source configurations (Siemens Force, 2	The ≤20 ms threshold appears to be either a typographical error (likely intended as ≤200 ms or ≤66 ms) or a specification copied from an advanced research context without clinical procurement validation. If applied literally and equally to all bidders, this specification would disqualify every CT system from every manufacturer currently on the market — rendering the tender non-competitive and in potential breach of PPRA Rule 32(2) requiring	Revise to: 'Temporal resolution: ≤175 ms native single-source rotation, OR effective temporal resolution ≤30 ms using AI-based motion correction technology with documented clinical validation.' If dual-source is the specific intent, this must be explicitly stated and technically justified under PPRA technology-neutral principles.

			mode): 66 ms. UIH uCT 960+ (native): 125 ms; with optional CardioCapture: 25 ms. Canon PRISM: ~137 ms at best optional rotation. Dual-source systems can approach 66–75 ms in dual-source mode.	× 0.25 sec = 66 ms effective) do not reach 20 ms. This threshold has no precedent in any published CT procurement standard, WHO/IAEA equipment specification, or clinical guideline.	specifications to be technology-neutral and not unnecessarily restrictive. If the committee's clinical intent was to ensure adequate cardiac motion freezing, the established benchmark is ≤200 ms (sufficient for heart rates ≤60 bpm) or ≤100 ms (for broader heart rate range), both of which are achievable with modern single-source and dual-source systems.	
Spec 53	**Reconstruction Speed**	*Reconstruction speed ≥100 images/sec at 512×512 matrix with iterative reconstruction*	Current published reconstruction speeds: UIH uCT 960+: 60 IPS (FBP); Canon PRISM: 80 IPS (AIDR 3D), 40 fps (AiCE DLR optional); GE Revolution Apex Elite: 65 fps; Siemens SOMATOM Force: ~70 IPS with ADMIRE. No standard 320-row CT system from any vendor achieves 100 IPS with full iterative reconstruction at 512×512.	Like the temporal resolution threshold, 100 IPS is not met as a standard specification by any commercially available 320-row CT system. Canon PRISM at 80 IPS (AIDR 3D) is the closest. UIH uCT 960+ at 60 IPS is the furthest. However, this is a workflow parameter — not a clinical image quality determinant.	Reconstruction speed determines patient throughput and workflow efficiency but has no direct clinical impact on diagnostic image quality for the specified application (stroke, cardiac CT). The difference between 60 IPS and 100 IPS translates to a delay of less than 1 second for a standard cardiac volume scan (320 slices). This does not affect clinical outcome, patient safety, or diagnostic accuracy in any published evidence base. Setting 100 IPS as a hard minimum threshold, when no commercially available system meets it, is not justifiable on clinical or technical grounds and constitutes a specification without grounding in routine procurement practice.	Revise to: 'Reconstruction speed: ≥60 images/sec at 512×512 matrix for standard filtered back-projection (FBP); AI/iterative reconstruction speed to be declared by vendor.' This accurately reflects the current commercial landscape and removes an unjustifiable threshold.