

ELK-CD-CMX01

CEILING DIAGNOSTIC X-RAY SYSTEM



ELK-CD-CMX01



ELK-CD-CMX01 is a functional machine integrated digital radiography. It can work in radiology department where in Medical Center, Diagnostic Center, Health Examination Center, Orthopedics and Trauma for doing radiography exams like chest, limbs abdomen, lumbar etc.

ELK-CD-CMX01

Imported X-ray tube

- Canon high-speed X-ray tube.
- Suitable for long-time high intensity exposure.
- High rotating speed, fast heat dissipation and long service life.



Self-developed high power and high frequency generator

- 500kHz ultra-high inverter frequency, 300 mA maximum tube current, stable radiation output. excellent radiation quality, good imaging effect.
- High power high voltage generator to ensure high quality and stable radiation output.
- Guaranteed after-sales service, low maintenance costs.



FPD

- Two FPD, realizing radiography functions: wire and wireless.
17"*17" ultra high-definition pixel FPD, larger field of view, no need to move to observe the entire dynamic process.
- Advanced and efficient flat panel technology, the image with no geometric distortion, providing high resolution and accurate images and accurate basis for clinical diagnosis
- In the process of visualization or replay, if suspected lesions are found, millisecond high-definition spot shoots can be carried out to capture single-frame images at any time and accurately capture lesions, so that doctors can further diagnose and analyze, reduce misdiagnosis, and help to quickly compile reports.



Automatic Electric Collimator

- Quickly select and preset the desired field of view, saving time in positioning:
- According to shooting needs or technicians usage habits, one key switches the beam ranges, efficient and convenient. The conventional beam limiter can only automatically switch the two beam ranges of radiography and the automatic electric collimator can automatically adjust the beam size according to different body position, which is more intelligent and greatly improves the inspection efficiency.



Double high-density grids

- The function of the high-density filter grid to filter scattered rays is better, which can further improve the image quality.
- Two high density grids as standard, special distance dedicated.
- The grid can be removed for low-dose examinations.



10.4 Inch large screen touch screen system

New added touchable table-side screen system come with multifunctional functions:

Synchronized with the station, radiographer can create a new exam anywhere both in X-ray room and control room, which is more convenient for the doctors' daily exams and emergency, no need repeat settings.

- Pre-view images after exposure,
- Real time display STD stretching.
- Setting exposure parameters,
- Human graphic body part selection of exposure,
- Adjust collimator effective area.
- Digital display movement: tube head rotation angle,
- 3D mode positioning demonstration
- Gravity sensor automatic rotate
- Emergency exams access: automatic record for taking radiography firstly then do patients registration when urgent diagnosis required

Intelligent Multi-functional Mechanical Design

Elevating table top min 56 cm to the ground

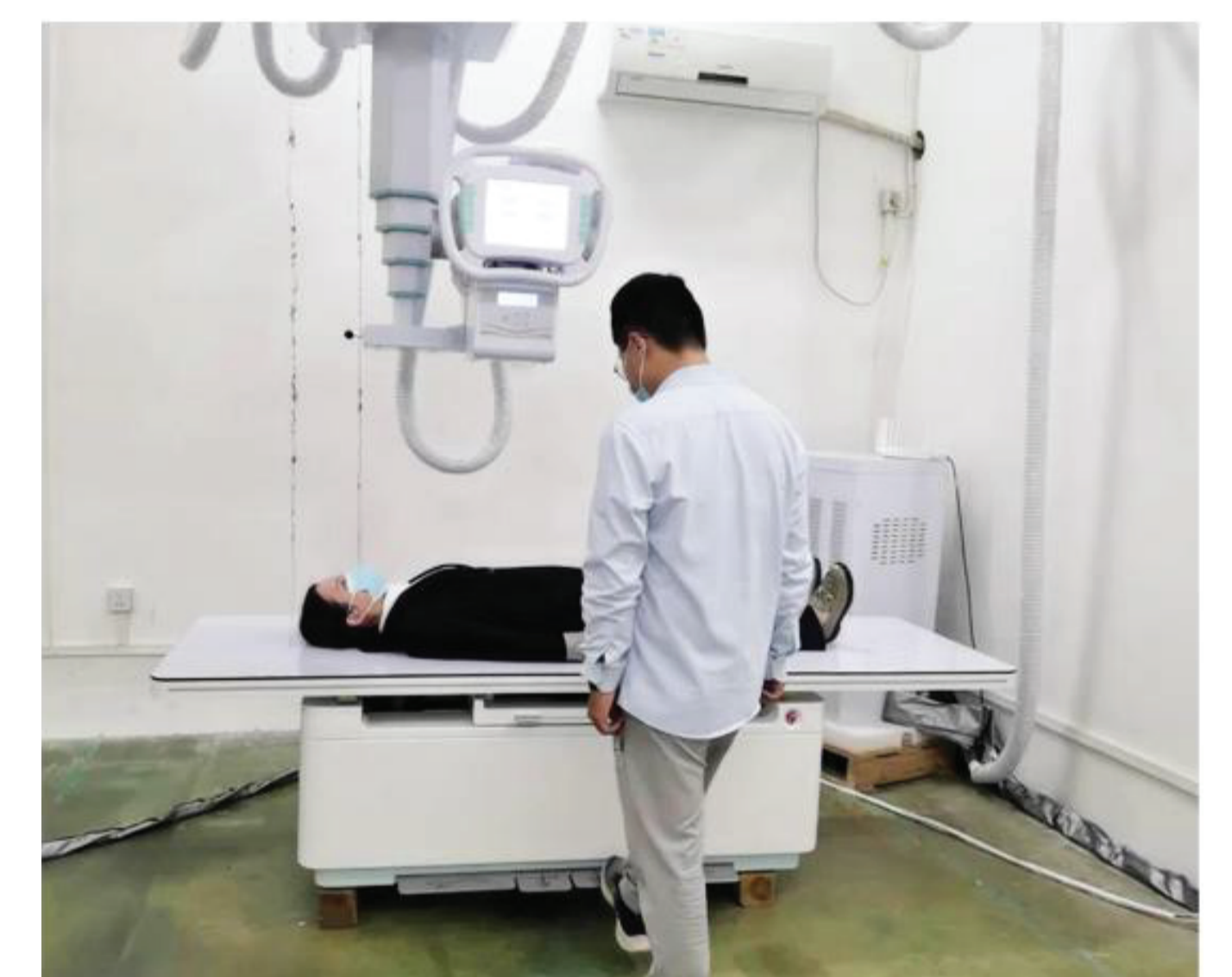
- It is convenient for the elderly, children, critically ill patients, and those with mobility issues to get on and off the table greatly reduce the work intensity of medical staff, bringing patients and medical staff more comfortable examination. Experience.
- Avoid second injuries: the height of hospital transfer bed is around 60 cm normally, our equipment can be elevated lower the height, so that the patient can directly move over without lifting it up, saving manpower avoiding second injuries during the movement.

Table Lengthways movement

- The vertical movement of the table is not less than 1000mm: it is more conducive to the needs of the needs of large field of view shooting.
- The electric table has a large four-way floating range on the bed surface. which fully meets the inspection needs of multiple parts of the human body.

Tube horizontally swing $\pm 135^\circ$

Horizontal rotation of the vertical axis of the tube device $\pm 135^\circ$, operating conveniently and fast realization of patient positioning shooting. It can shoot more special parts and expand the scope of the hospital's business.



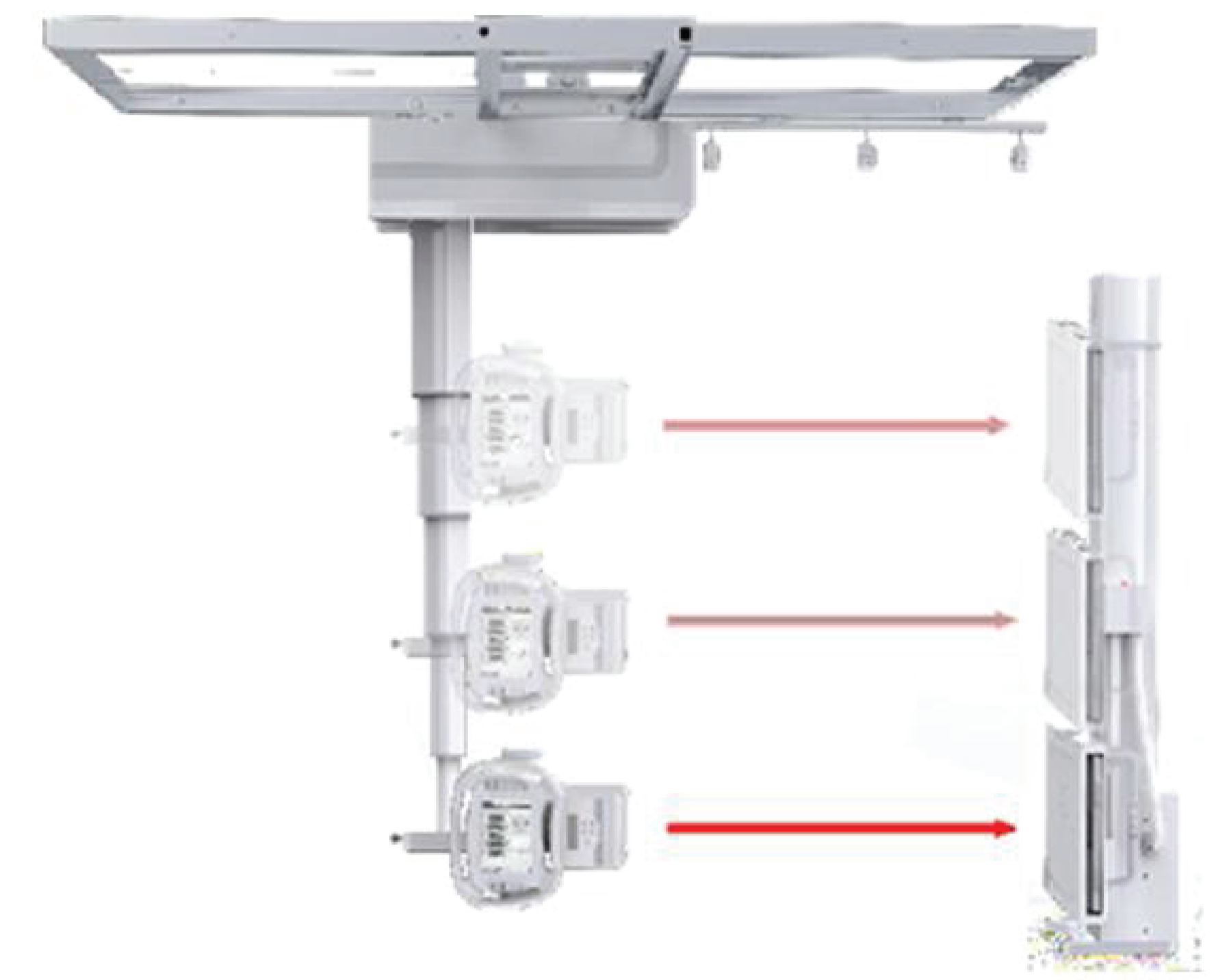
Sync Tracking between tube and Column

Latest automatic tracking (tube & detector)

The X-ray irradiation range can be automatically adjusted according to the inspection site, and the detector of bucky stand and the tube can be synchronized during upright examination, which is different from the traditional electric beam limiter tube and the chest X-ray frame Work & efficiency.

Manual operation of simultaneous movement of tube and chest rack

To ensure that when the automatic tracking system fails, the tube and detector of bucky stand still be tracked synchronously to ensure the normal progress of daily inspections.



Large Rotation Range Suspending Console+

- The head rotation range is $\pm 120^\circ$, enabling accurate and fast positioning to meet the radiology needs of special parts.
- For patients using wheelchairs or stretchers, examinations can be performed without moving, which brings great convenience to doctors.



Automatic absorption

The charging device of the flat panel detector adopts automatic adsorption function, quickly and accurately locate the power supply position. Avoid the conventional pinhole insertion type, which is easy to operate improperly, resulting in probe The needle is deformed and damaged, resulting in later maintenance.



One-button Photography

Intelligent electric control design, respectively meet the one key horizontal position 1.0 meters, standing position 1.0 Meters, stand 1.8 meters shooting demand. Operation convenient and quick, improving work time more effectively.

Tube and Table Detector Automatic Tracking

The X-ray tube and the HPD are tracked automatically, without the need to move the shooting device multiple times, which is easy to operate and improves inspection efficiency.



Manual and Automatic Combination Chest X-ray Stand

The integrated chest X-ray stand is convenient for the doctor to quickly adjust according to the patient's shooting needs when operating close to the table, saving time for setting up.

Removable Grid

- Standard configuration with two grids, dedicated for special distance
- When inspecting low-dose areas, the grid can be removed to care for the health of doctors and patients

Optional powerful functions

DAP Function (Optional)

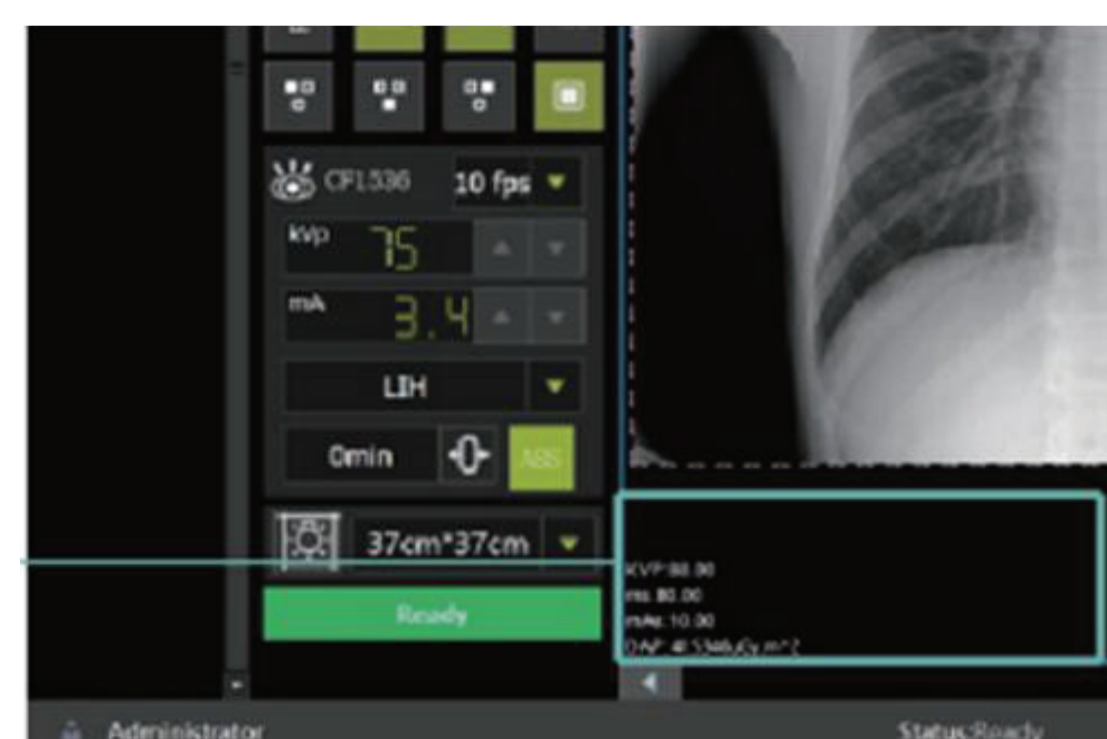
DAP monitoring-Visualized data for safety and health

- The first Industrial manufacturer to adopt DAP monitoring system with deep technical accumulation
- Intelligent DAP monitoring system can record the single examination dose and manage the radiation absorption of patients.



DAP

KVP:88.00
ms:80.00
mAs:10.00
DAP: 41.5346uGy.m²



- DAP monitoring is an important functional index to measure the quality of X ray machine, and it is also a necessary function to export to European and American countries.

AEC Function (Optional)

- AEC function automatically controls the exposure time, which can make the images taken by different parts and different patients have the same amount of light, and completely solve the problem of inconsistent photo sensitivity.
- The operator does not need to select parameters, reducing the operation difficulty and shortening the workflow, especially suitable for large-scale physical examinations and large-scale outpatients.
- Automation and intelligence are the development direction of all electrical equipment.

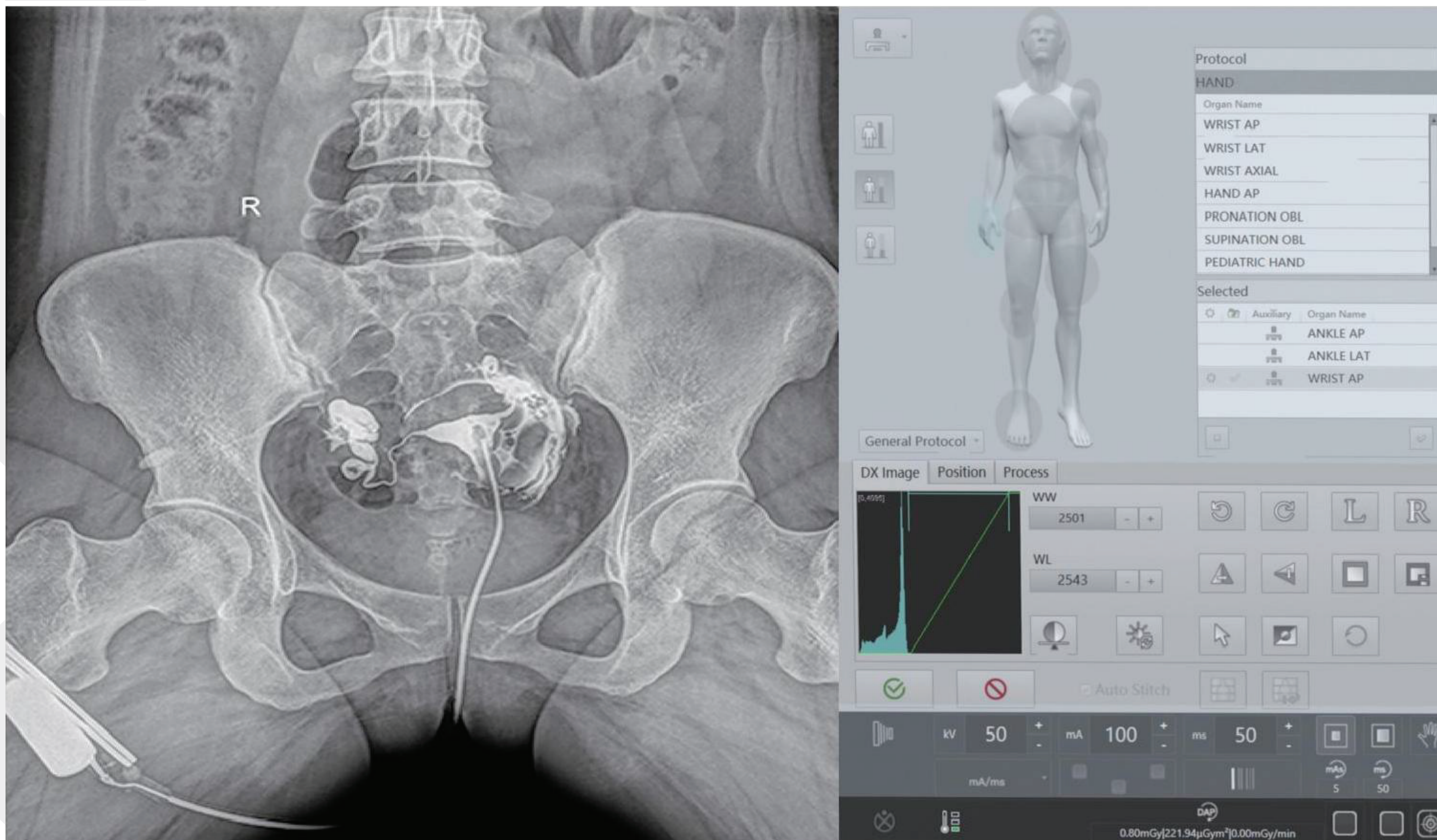
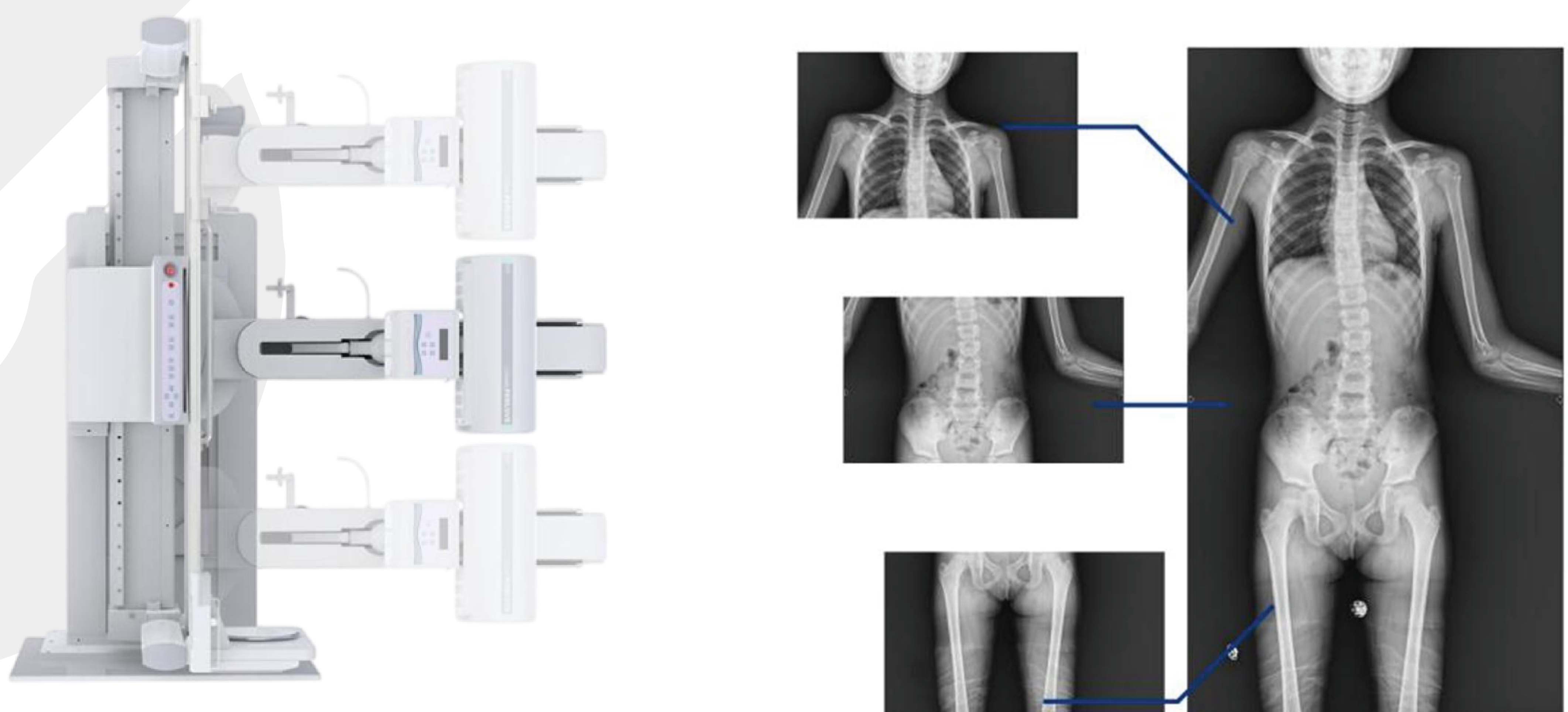


Image Stitching (Optional)

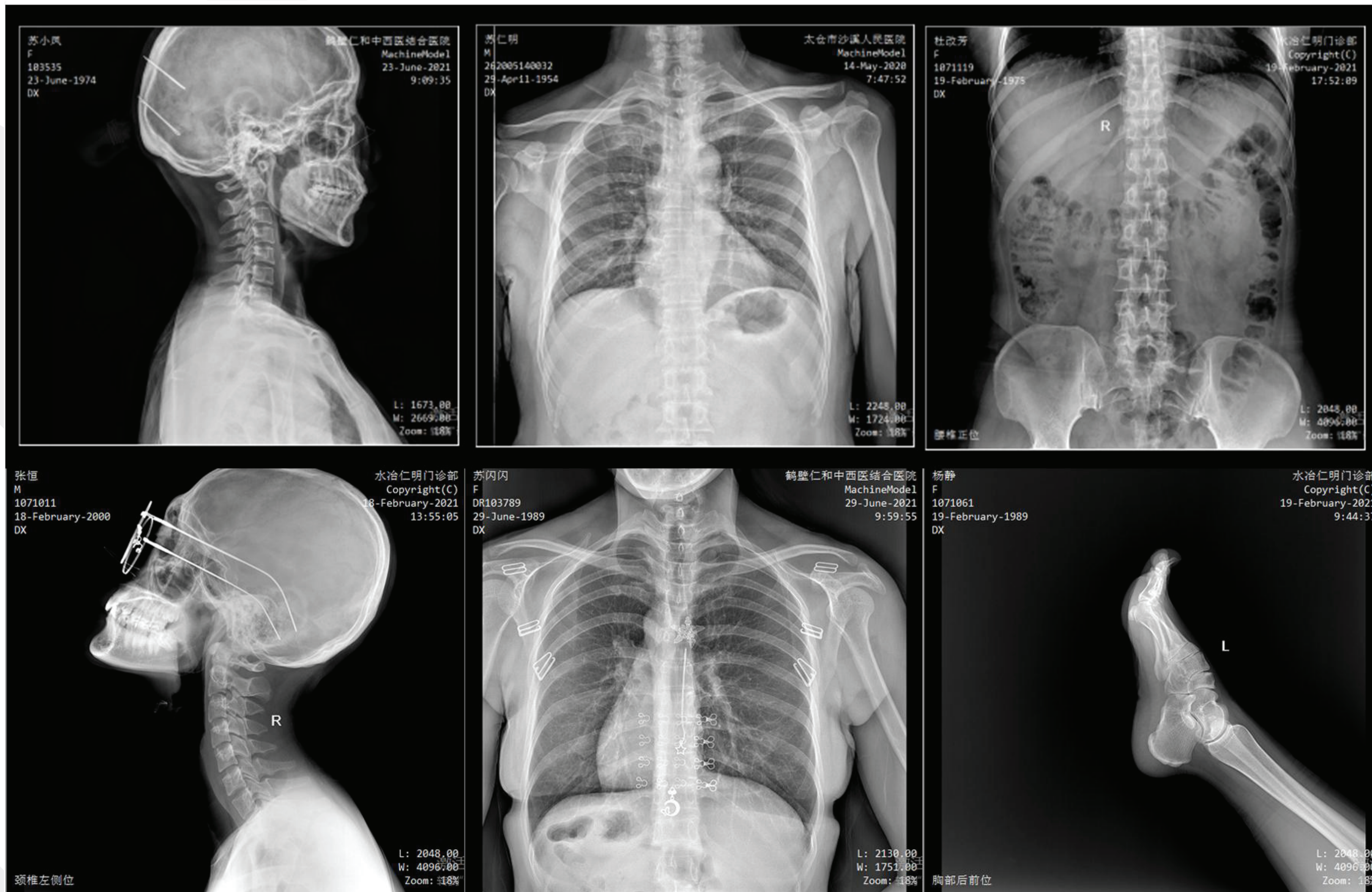
- Panoramic stitching of full lower limb or full spine images
- A reliable basis for preoperative planning and postoperative review in the treatment of spinal and lower limb deformities



- It provides an important data reference for the formulation of preoperative surgical plans and the evaluation of postoperative effects such as scoliosis and loading bone orthotics, knee prostheses, and hip replacement surgery.

Digital Radiography

Meet the radiographic examination of all parts of the human body, including conventional radiography, special radiography (image stitching), precise visual radiography, large-area fracture radiography, and large-scale physical examination radiography, suitable for all clinical departments of the general radiological department.



Digital Radiography

Item	Content	ELK-CD-CMX01
Power	voltage Frequency Capacity Internal Resistance	380V 50Hz±1Hz 105kVA ≤0.17Ω
X-ray Generator	Power Inverter Frequency Radiography Tube voltage Radiography Tube current Radiography Exposure time Radiography mAs	65.5KW 500KHz ±20% 40k - 150kv 10mA - 800mA 1.0 ~ 10000ms 0.1mAs - 800mAs
Collimator	Brightness Visible light illumination Filter	>100lux 5s - 45s (every step 5S) ≥1mmAL
X-ray tube	Model: Tube Focus: big/small Input power Anode thermal capacity Rotary anode speed Component thermal capacity Target angle Fixed filter	E7254FX 1.2mm/0.6mm 180Hz: Big focus 102kW Small focus 40kW 285KJ (400KFU) 9700rpm (180Hz) 950KJ (1339KHU) 12° 0.8mm Al/75kv

Item	Content	ELK-CD-CMX01
Suspending Console	Lateral movement Lengthways movement Vertical movement X ray tube move around horizontal line X-ray tube move around vertical line	≥1950mm ≥2250mm ≥1500mm ±120° ±135°
Flat Panel Detector*2 PLD1717X+PLD: 1717V3	Active area Pixel pitch Pixel matrix Limiting resolution A/D transition Acquisition speed Energy range	427(H)mmx427(V)mm 139µm 3072(H)×3072(V) Unattenuated body mode ≥3.7 lp/mm 25mm thick aluminium attenuated body mode ≥3.4 lp/mm 16 bit Up to 30 fps 40 - 150 kvp
Diagnostic Table	Table lengthways movement Table lateral movement Table vertical movement Cassette lengthways movement Table terrain clearance Loading capacity Detector to Table distance Filtering grid	≥1000mm ≥260mm ≥320mm 500mm 560mm 200KG ≤60mm 18*18. 103LPI (manual)
Computer workstation	19 inch monitor +computer + keyboard + mouse + speaker Joystick remote controller Foot brake control system Desk Image professing software	

Image Processing Software functions

Basic operations:

Registration: regular registration, emergency registration, adding agreement, adding items, clearing information, starting inspection.

Work list: list information, search for patients to be examined, refresh of the to-be-examined list, deletion of examinations, and display column settings. Start inspection, emergency registration.

Exam list: list information, examined patient display and search delete images, image storage. CD burning, add items, display column settings. modify examination information.

Patient size: Thin adults, adults, Fat adults.

Photography parameter settings: exposure mode, frame rate setting, kVp, mA, ms, mAs, AEC, focus selection.

Perspective parameter setting: exposure mode, frame rate setting. kVp, mA, ABS, time reset.

Image acquisitions and professing software functions:

Browsing Tools: Zoom Flip Horizontal, Flip Vertical, Rotate Left 90 Degrees, Rotate right 90 Degrees. Zoom In, Zoom out, Original Size, Move Image, Invert Color, Adaptive Size, ROI, Magnifier, Magnifier, Default Window Width Window Level, ROI window with and window level, visible window width and window level, point gray value, advanced processing, ellipse gray measurement.

Measurement tools: arrow, cardiothoracic ratio (CTR), distance measurement, angle measurement, spine measurement

Image output and management operations:

System Tools: Text Marker, Anterior Body Marker, Left Marker, Right Marker, Circular Crop, Delete Image Delete Tool, Error reset, exposure indicator, full screen, save current image, print.

Report editing: Patient information display and editing, image selection, report content template selection, report description, report conclusion, report description + conclusion, editing knowledge base, reporting doctor, reviewing doctor, reporting time, printing template plate, setting, saving report.

Report Printing: Quick Print, Print Report Image Archive, Burn, Print: Delete image, Image Storage, Browse Image Report Lock/Unlock, Store Queue, Print Queue.

Dise Burn: Volume Label. Save Settings, File Compression, File Structure.

Print: Access to DICOM Printer, Local Printer.

System Settings: System, Annotation Information, Tools, Others. Hardware Configuration: Syncbox, High Voltage, Probe, Collimator, DAP, Network.

Configuration: Local, Job List, Netstore, Local Store, Print.

Check Management: basic information placement information. hardware parameters, image processing, inspection protocol.

Quality management: search, system management.

User management: add, update, delete, authority.