

# Auto Positioning System

GXR-SD Digital Radiography System

*Experience optimized workflow and  
maximize your performance*



## Maximize Your Performance

Fully automated streamline workflow offering auto tracking and positioning features, increase throughput and enhance the experience of patients and operator focusing more on patient care. Fully motorized auto-positioning provides precision positioning to both the wall stand and table with speed and effortless movements. The combination of automation with the pre-programmed RADMAX procedure and the automated RADMAX image processing gets you up to speed, for maximum efficiency.



**WBS-TA Deluxe**  
Automatic Tilting  
Wall Bucky Stand



**TS-CSP Deluxe**  
Automatic Ceiling suspended  
Tube Stand



**PBT-6 Deluxe**  
Elevating  
Patient Table

## Auto Rotating Touch Screen Console



Worklist



Procedure



Positioning



Generator Control



Collimation Control



Image Preview

## Multiple Control Options for Convenience and Efficiency



RADMAX  
Work Station



Tube Stand  
Touch Screen (15.6 inch)



Remote  
Control



Mini  
Remote  
Control



Control Panel of  
Wall Bucky Stand  
(on the both side)



WBS-TA Deluxe 10.1 inch LCD



Handgrip Switch



Wireless foot switch

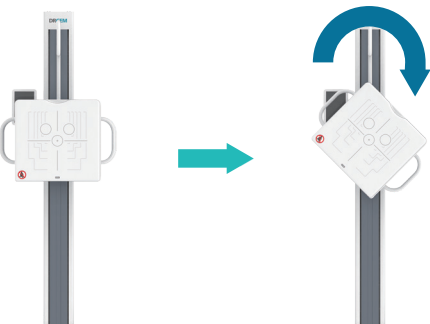


Wired foot switch

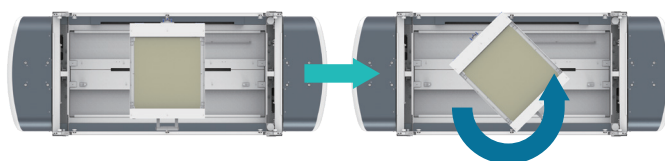
Motorized Vertical Movement (Up / Down)  
Release all of lock (Lateral / Longitudinal)

## 45° Bucky Rotating

The length gets 1.4 times longer when it rotates, which helps take better X-ray images of tall patient's arm and leg bones.



WBS-TA (Deluxe)



PBT-6 (Deluxe)

## Auto Positioning – Wall Bucky Stand

- Chest radiography positioning at SID 180cm(S2) by one touch operation.
- Abdomen at SID 100cm(S1) by one touch operation
- Vertical synchronization between wall bucky and tube is available.



In the system setting, enter the S1 and S2 position

## Wall Bucky Centering (Tilted Wall Bucky Synchro)

Tube tracking the center of Wall Bucky in vertical movement and tube rotating to expose the tilted Bucky perpendicularly at the same time.





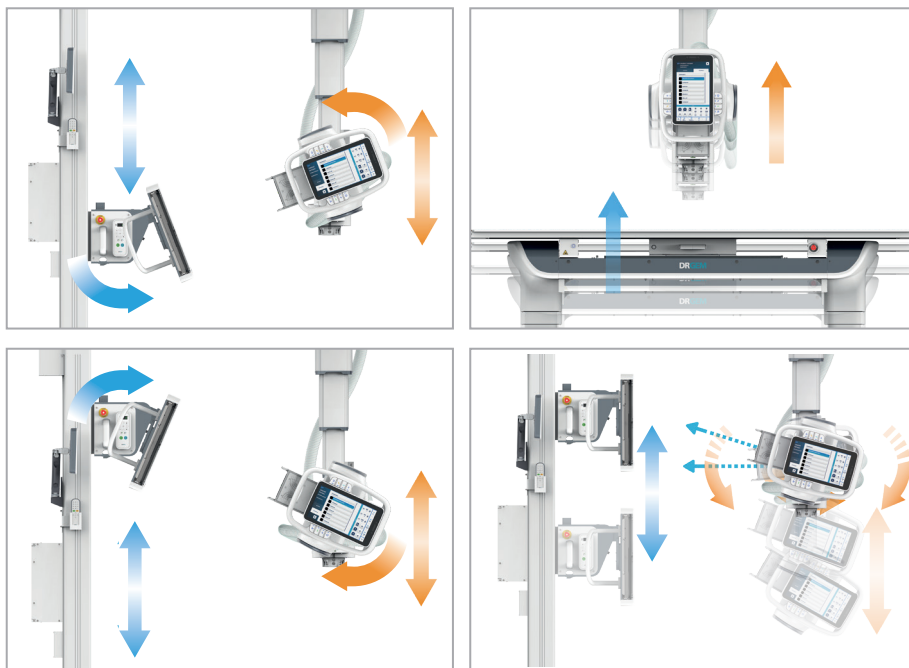
## Table Bucky Tracking      Vertical Synchronization

## Bucky follows Tube



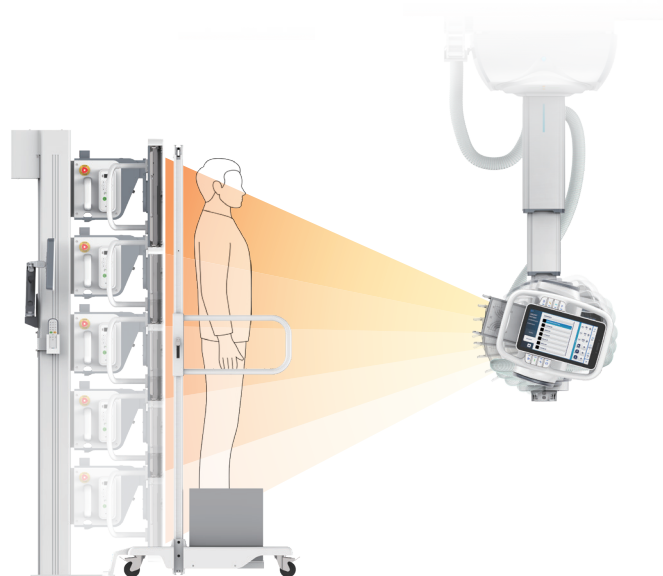
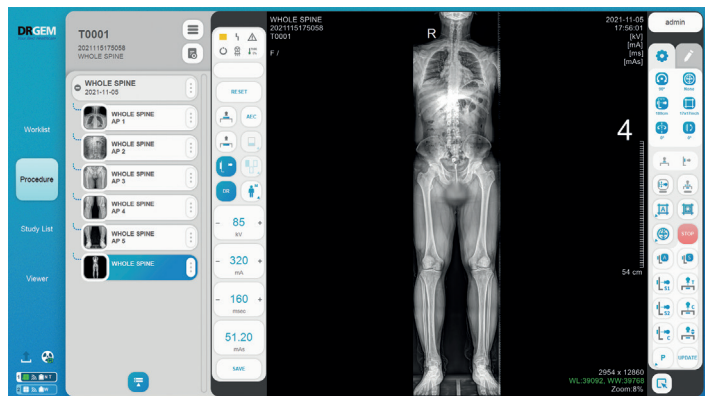
## Vertical Synchronization

## Tube follows Bucky

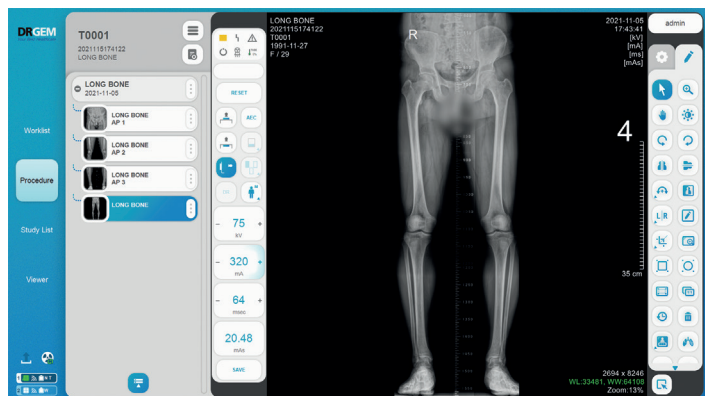


## Auto Stitching

## Wall Bucky Stand

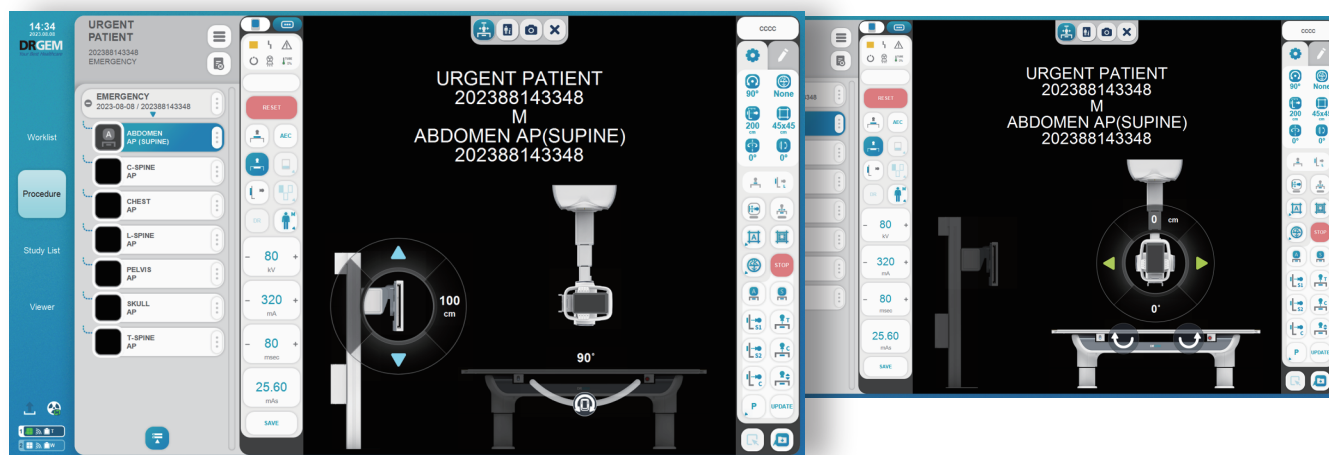


## Patient Table



## Precision Movement Control

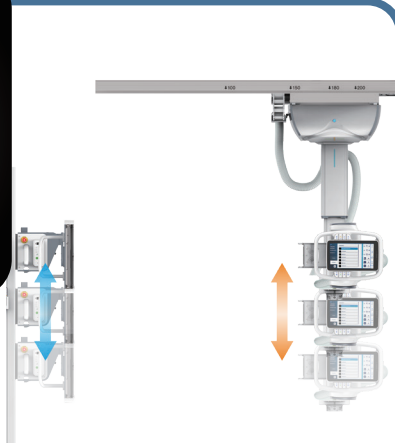
The operator can precisely control the Tube Stand position (Longitudinal Direction), Tube angle, and WBS height via the RADMAX control panel without directly approaching the equipment. Precision Movement Control functions enable intuitive and convenient operation.



- 1 When Tube Stand Moves
- 2 Table Bucky Tracks & Follows



- 1 When Tube Angle Rotates
- 2 Table Bucky Tracks & Follows



- 1 When Wall Bucky Moves
- 2 Tube Stand Tracks & Follows



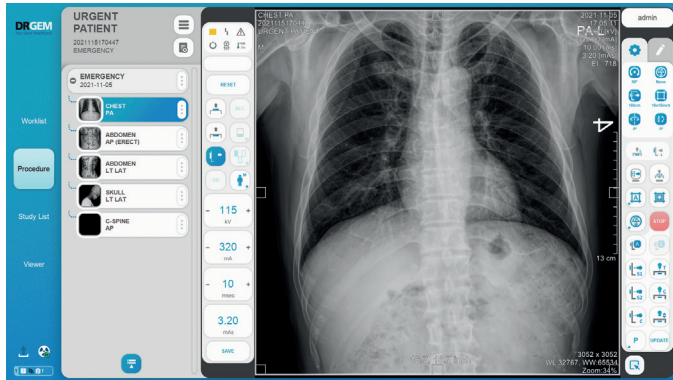
- 1 When Tube Angle Rotates
- 2 Tube Stand Moves Up/Down Synchronously with WBS

## Diagnostic Confidence

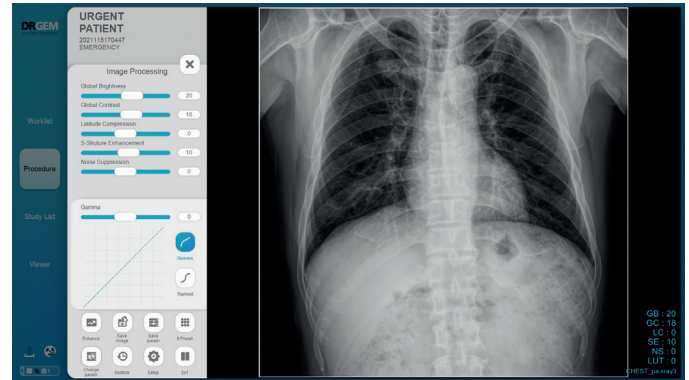
### Full Featured Imaging software & Excellent Digital Image Processing

- RADMAX offers high-performance imaging, intuitive user interface, high throughput and efficiency.
- Built-in anatomical view based digital image processing automatically enhances the image quality.
- In favor of Real-time image adjustment and 9 preset views, always consistent and optimized image gives radiologist Diagnostic Confidence.

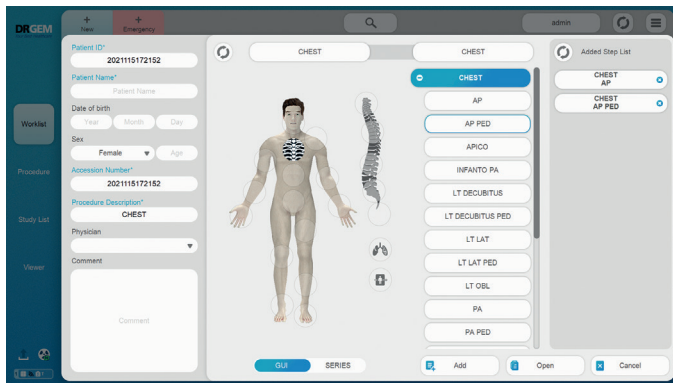
#### Main GUI



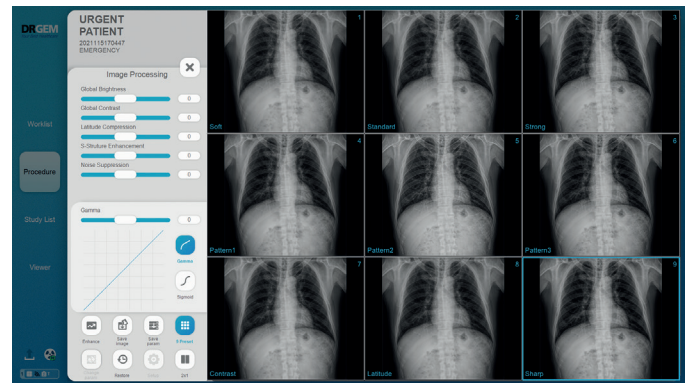
#### Real-time Image Adjustment



#### APR

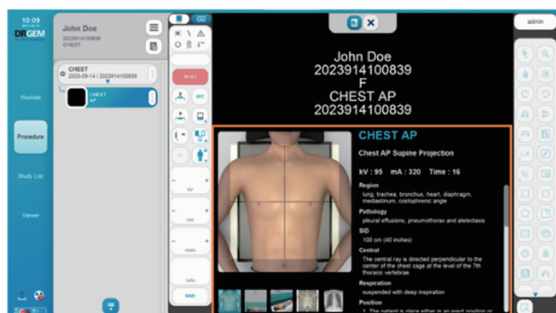


#### 9 Preset Views



## Positioning Guide

- Positioning Guide provides operators with patient position and x-ray technique by intuitive graphical information to get the best image quality for the highest effectiveness of diagnosis.
- The feature is also beneficial for training or educational purposes.



RADMAX GUI

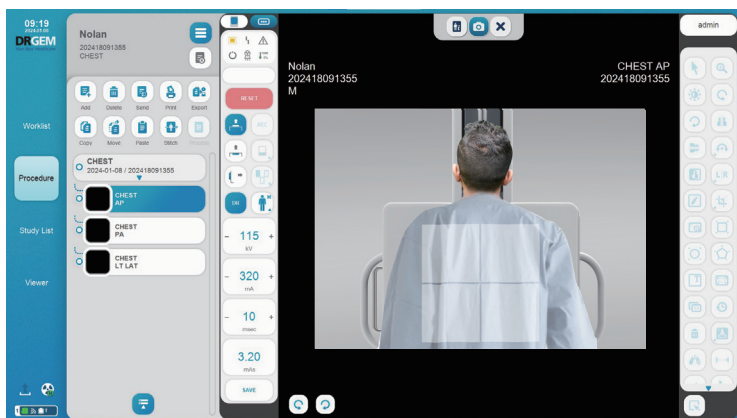


THU GUI



## Live Streaming Camera

Display the live streaming on RADMAX and THU to monitor patient's position.



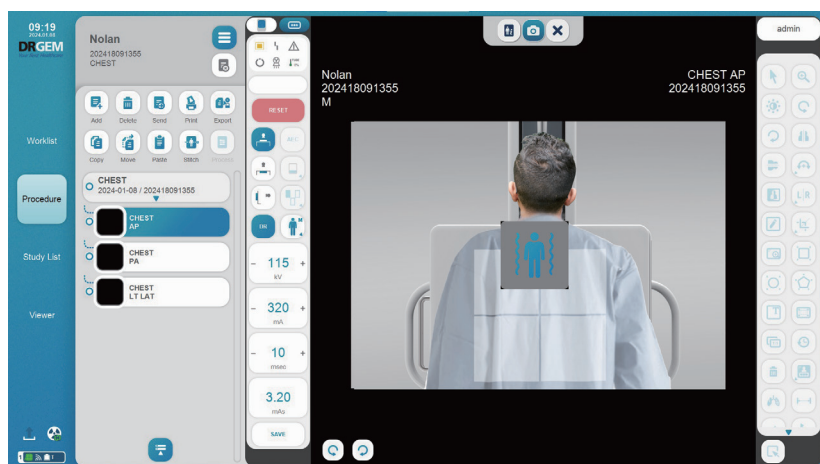
RADMAX GUI



THU GUI

## Patient Movement Detection

RADMAX can detect patient movement, and alert the operator before the X-ray exposure.

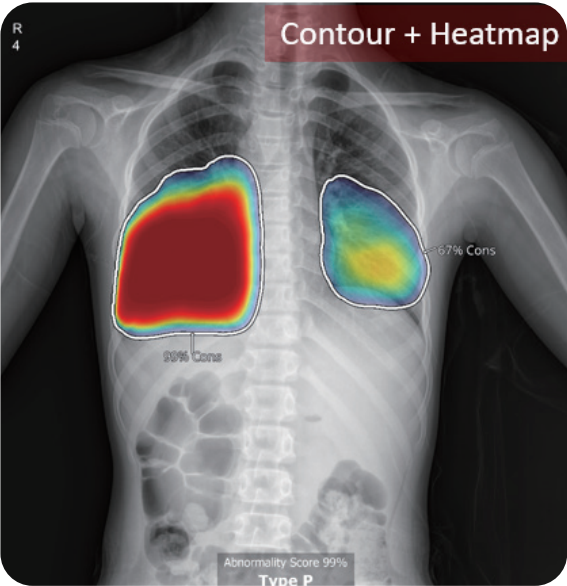


## Virtual AEC Field

- By displaying the AEC Field Area virtually, operator can accurately align and match the AEC Field area with the patient's body during patient positioning.
- It prevents X-ray retakes and helps in acquiring best quality images.

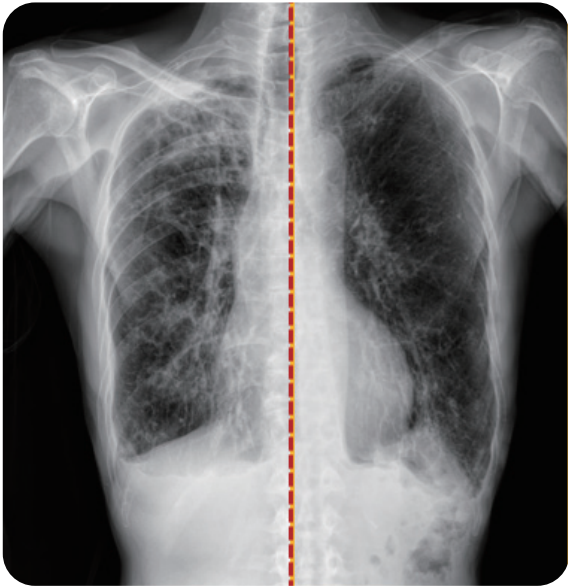


## AI-Based Diagnostic Assistance



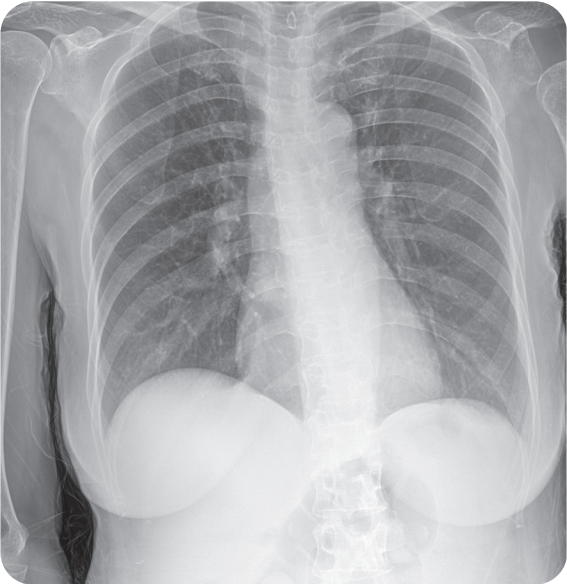
## Bone Suppression

AI-Based Bone Suppression for soft tissue imaging of Digital Chest Radiography.

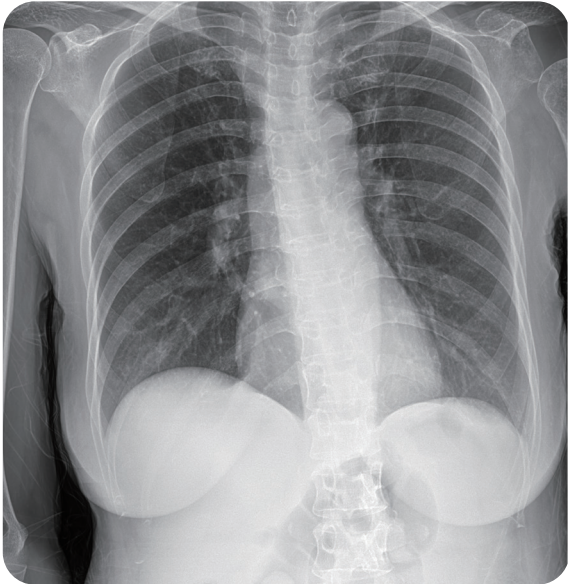


## Scatter Reduction

This software-generated grid feature helps improve image quality by reducing radiation scatter without using physical grids.



Non-Grid



Scatter Reduction

## Applicable Detectors

Size	Scintillator	Type
10x12 / 14x17 / 17x17	CsI	Fixed / Wireless / Wired portable



## Patient Safety

### Preventing collisions with safety sensors



### Emergency Stop Switches



Wall Bucky Stand



Tube Stand



Patient Table



Control Room

### Patient Dose Management

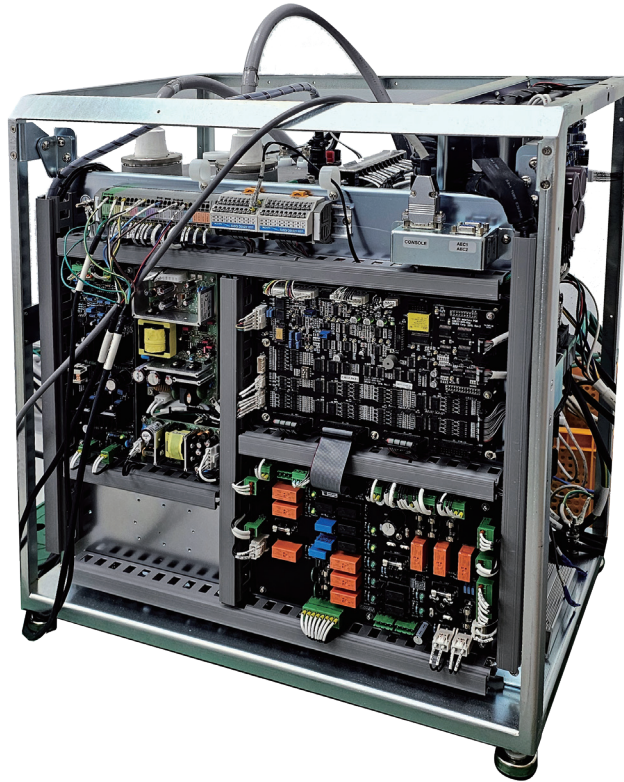
**AEC** Automatic Exposure Control, Limiting X-ray dose to patients

**DAP** Dose Area Product, Measuring dose to patient

**RDSR** Radiation Dose Structured Reports for DICOM standard

**Carbon Fiber Tabletop** Superior X-ray transmittance, 270% less X-ray absorption

# High Frequency X-ray Generator



Generator Model	GXR-52	GXR-68	GXR-82
Power Rating	52kW	68kW	82kW
Line Power	380/400/480VAC, 3 $\Phi$ ±10% (Frequency: 50*/60Hz), * : Outside North America		
kV Range	40~150kV, 1kV step		
mA Range	10 to 640mA	10 to 800mA	10 to 1,000mA
Timer Range	0.001 to 10 sec, 38 steps		
mAs Range	0.1 to 500mAs (Optional up to 1,000mAs)		
Max. Power Output	640mA@81kV 500mA@104kV 400mA@130kV 320mA@150kV	800mA@85kV 640mA@106kV 500mA@136kV 400mA@150kV	1,000mA@82kV 800mA@102kV 640mA@128kV 500mA@150kV
Power Requirement	Minimum 125% of output rating		
Minimum Breaker Rating	75A(380Vac,3 $\Phi$ ) 75A(400Vac,3 $\Phi$ ) 65A(480Vac,3 $\Phi$ )	90A(380Vac,3 $\Phi$ ) 90A(400Vac,3 $\Phi$ ) 75A(480Vac,3 $\Phi$ )	100A(380Vac,3 $\Phi$ ) 100A(400Vac,3 $\Phi$ ) 90A(480Vac,3 $\Phi$ )
Rotor Supply	Dual Speed		
Reproducibility	Coefficient of Variation: kV < 0.005, Time < 0.005, mAs < 0.01, mR<0.01		
Accuracy	kV < ±(1%+1kV), mA < ±(3%+1mA), Time < ±(1%+0.5ms), mAs < ±(3%+0.1mAs)		
Linearity	Coefficient of Linearity < 0.01 : CL = (X1-X2)/(X1+X2), where X is mR/mAs		



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