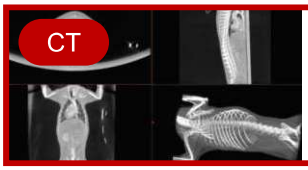
DeteCT

"**Next-generation Cone Beam CT(CBCT)** with innovative technology and practicality"

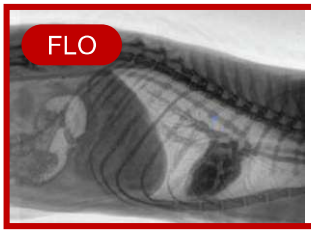
Reasonable Costs

Low-Dose, High-Definition

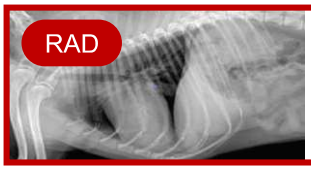
Enhanced Usability



- Scan Time: 6 ~ 24sec
- Reconstruction Time (25sec)
- High Image Quality
- MPR Viewer



- Large FoV: 43x43cm
- Frame Rate
  - 2x2 binning (half): 30
  - No binning (full): 10
- Real-Time Image Processing
- DSA (Digital Substraction Angiography)
- ABC (Auto Brightness Control)



- Simple Workflow
- Image Preview
- Image Processing Time (< 0.8sec)
- Advanced Image Processing
- Powerful Measurement Tools

Reasonable Costs for Install, Operate, Maintain

3-in-1 Hybrid
Cost and space efficient with 3 functions (RAD, FLO, and CT) in one device

High profitability
High cost per 1 CBCT image

220V Plug-in operation
No need for expensive electrical wiring

Compact size
Convenient storage and moving

Convenient maintenance
- Stable output and long life of Rotating tube
- Flexible AS & Update of self-developed SW

MDCT VS DeteCT(CBCT)

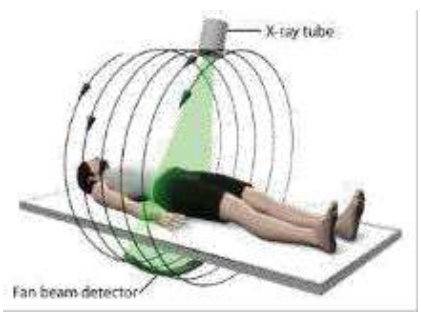
MDCT
Conventional CT

DeteCT
Hybrid CBCT

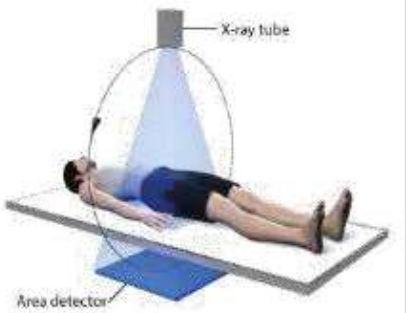
Fan Beam	Beam	Cone Beam
Higher	Radiation dose	Lower
Moderate(Longer scan and processing times)	Patient Throughput	High(Efficient workflow through quick scan times)
Higher	Overall cost per scan	Lower
Higher	Maintenance cost	Lower
Larger area	Space Requirements	Smaller area(5 x 3 m^2)
3-phase power supply (380V)	Power supply	Wall power (110~220V)

Advantages of DeteCT imaging technique

1. MDCT acquires images by performing multiple rotations of the scanner using a helical scanning method.
2. CBCT is superior to MDCT in **musculoskeletal imaging** due to its **superior resolution and spatial resolution**.
3. CBCT obtains diagnostic images **with lower doses** (*ALARA) compared to MDCT.



Fan Beam(MDCT)



Cone Beam(CBCT)

*ALARA: An abbreviation for 'As Low As Reasonably Achievable', the principle of optimizing radiation protection

Specifications & Dimensions

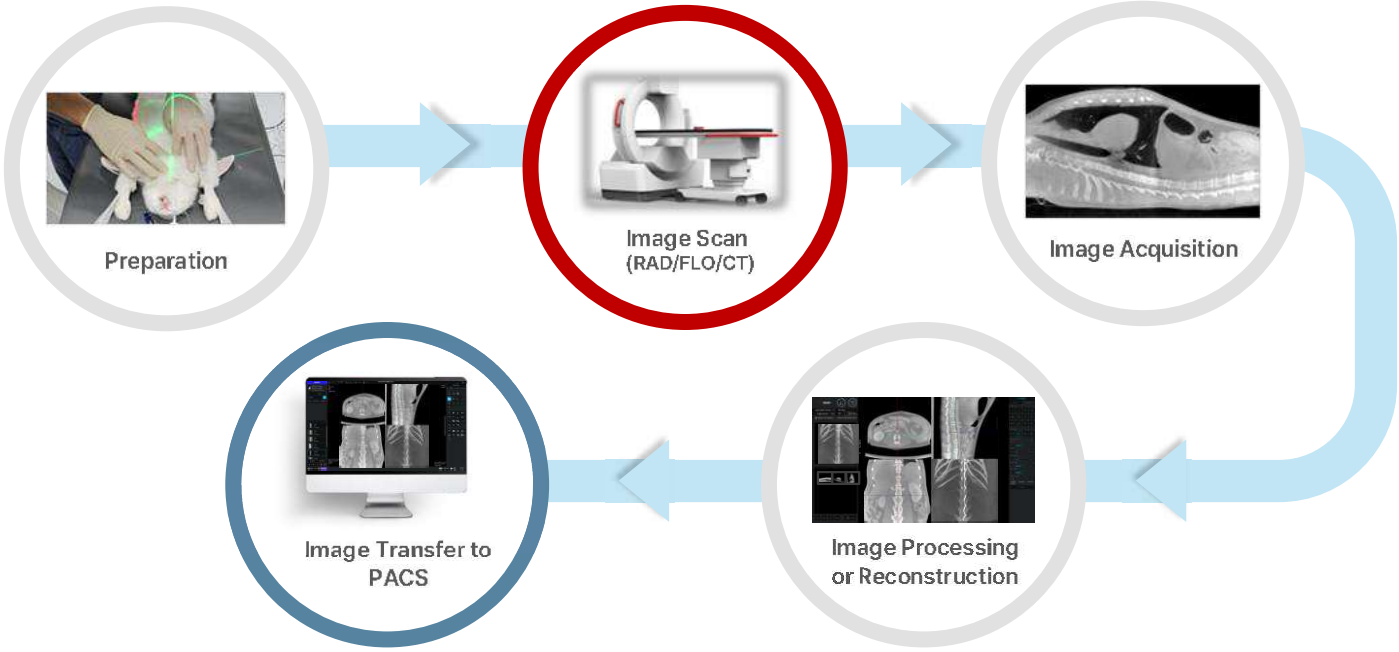
Scanner

Size (WxLxH)	1,744 x 800 x 1,845mm (Scan mode)
Bore size	750mm(based on patient table: 650mm)
Net Weight	600kg
Power supply	220~240VAC / 15A / 4.8kVA
Generator	10kW (CT: 4.8kW / FLO: 3.5kW) | 40~120kV (FLO: 115kV) | 200mA (CT: 40~100mA / FLO: 20mA)
X-ray Tube	Rotating anode | Focal spot size: 0.3/0.6mm
Detector	IGZO TFT | Size: 430 x 430mm
Monoblock	Heat capacity: 105kJ
Field Of View	280 x 280 mm
Scan & Recon. Time	scan<19s | recon.<46s @560 slices
Image resolution	Pixel size: 1x1: 3,072x3,072, 2x2: 1,536x1,536 Pixel pitch: 140μm

Bed

Size (WxLxH)	2,130 x 732 x 900mm (Scan mode)
Net Weight	200kg
Patient max. weight	100kg
Travel range	Horizontal: 650mm, Vertical: 215mm

Simple & Easy operation



ExamVue CT Suite

'ExamVue CT Suite' is developed by JPI Healthcare and focused on user convenience and visibility.

Flexible AS & Update is available and hospital logos can be inserted upon request.

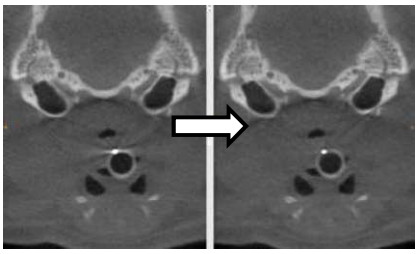
Image Acquisition in 3 Modes (RAD/FLO/CT)

Radiography

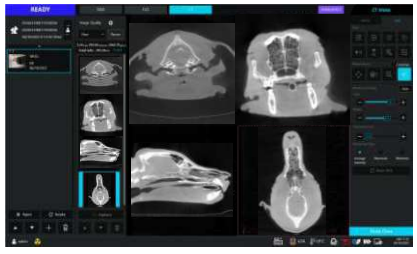
Fluoroscopy

Computed Tomography

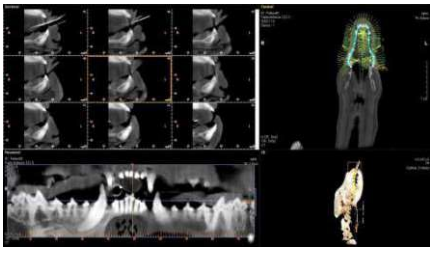
Image Processing & Image Preview



MAR (Metal Artifact Reduction)



3D Viewer



Dental application(Panorama)