UNITED IMAGING

uCT 528

Empowered.
Elegant.

uCT 528

uCT 528 is designed to bring customers more access to advanced technologies. The intuitive and intelligent workflow boosts efficiency and effectiveness of routine practices. The unique Z-Detector, along with various dose control techniques, help to image the patient with care. The system also shows outstanding financial performance with reliable components and multiple integrated advanced applications.

| Workflow with Ease

| Imaging with Care

| Broaden your Clinical Portfolio

| Outstanding Financial Performance

Workflow
with Ease

Intelligent and automated operations for personalized care.

EasyRegister

The most frequently used protocols are sorted, updated and placed in the front page shortcut area for easy selection.

Along with the preset patient positions, the patient registration can be completed with only a few clicks of the mouse.

EasyScan

Intelligently plans the exam for individual patients.

Clinical parameters (such as scan range, reconstructed FOV, and gantry tilt) are automatically adapted to the needs of the particular patient.*

uDose automatically generates an optimized 3D dose distribution plan based on anatomic information.

EasyLogic

The system anticipates the operator's needs and prepares itself to reduce delays including tube preparation, gantry positioning, and data preprocessing, in order to expedite the CT exam workflow.

Minimizes the wait time between operation procedures and accelerates CT exam workflow significantly.
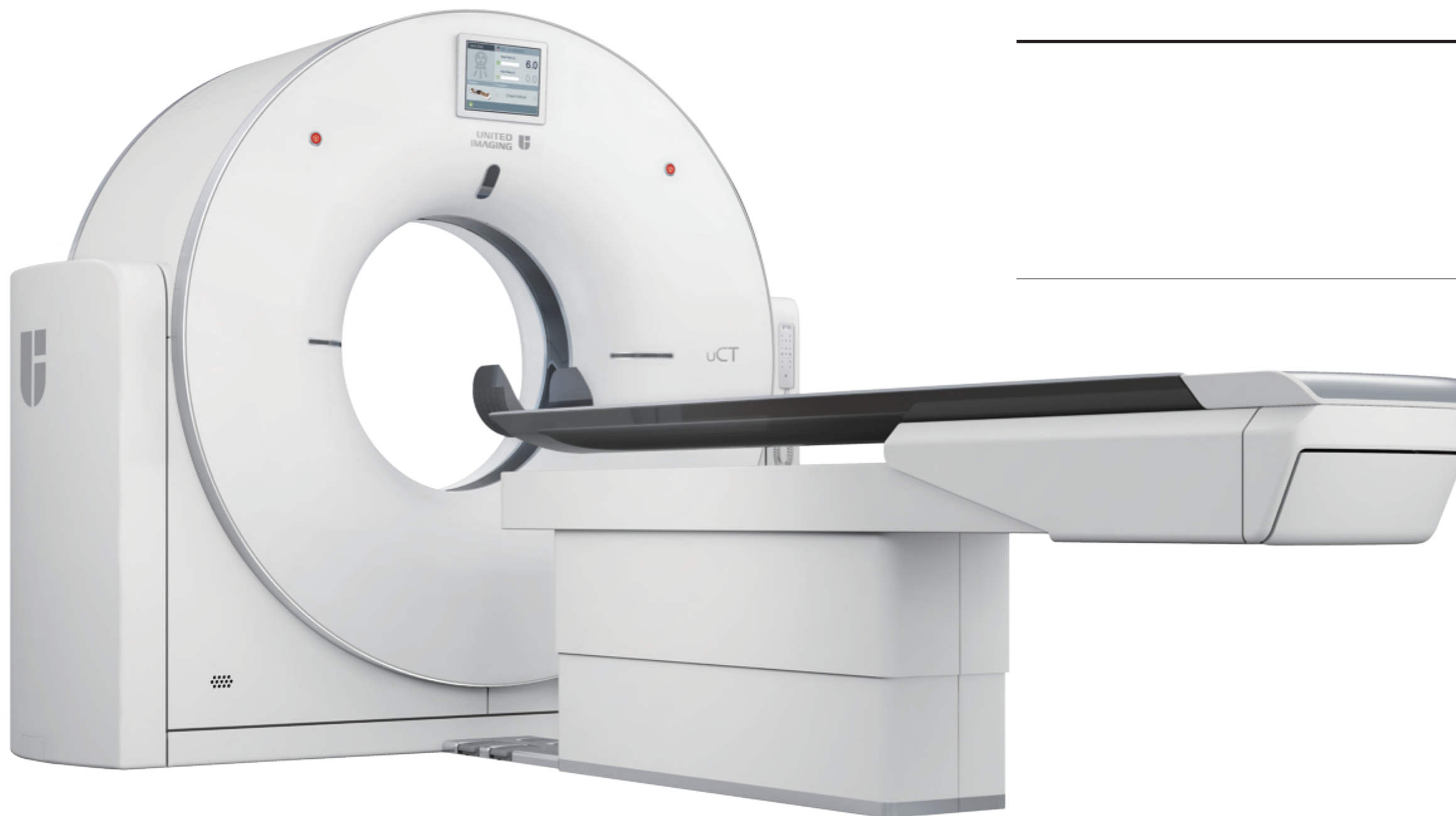
*Optional

Easy Post-processing

Post-processing is incorporated into the workflow as part of the reconstruction task.
This allows uCT 528 to provide fast and reproducible results with minimal effort.

Single-click bone removal employs different algorithms that are tailored to
different applications such as carotid CTA, body CTA and virtual DSA.
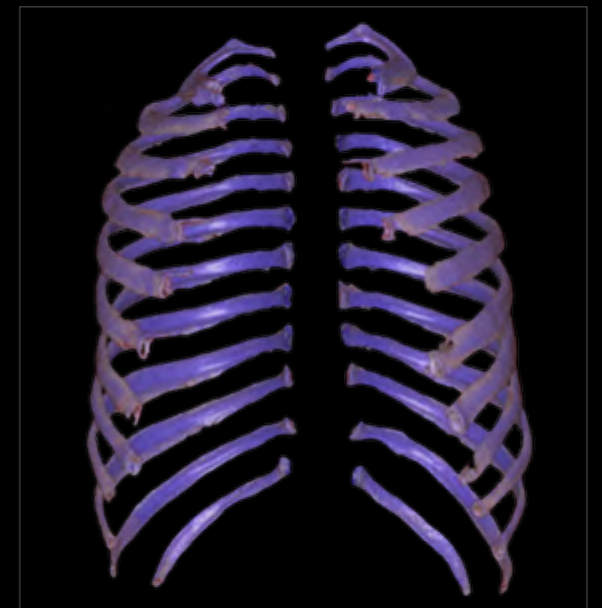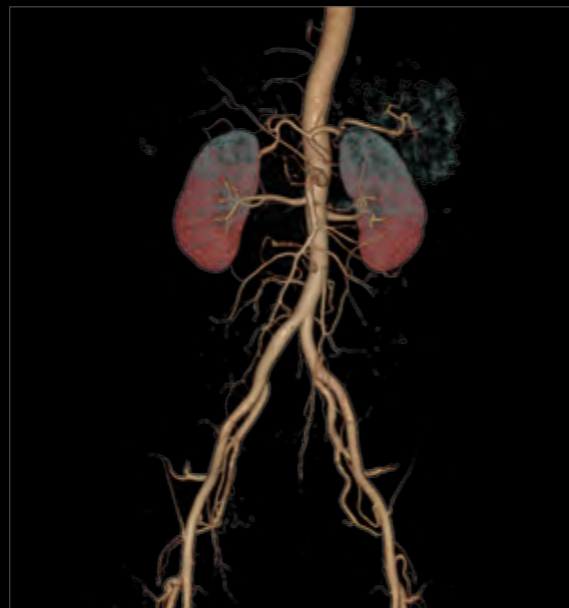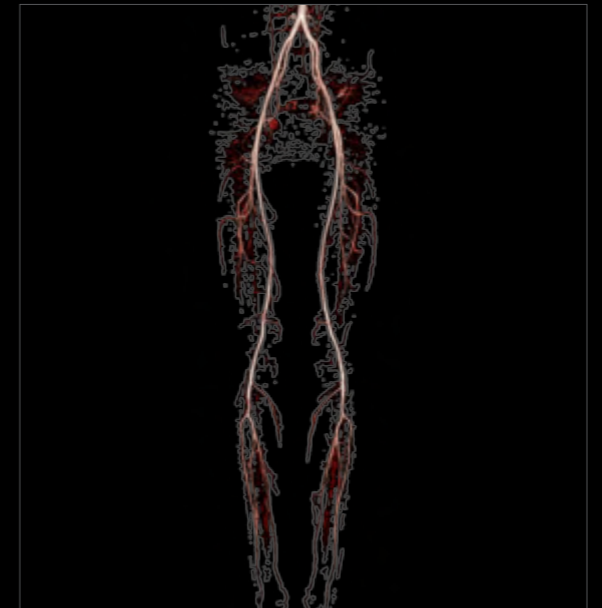
Single-click rib extraction automatically segments the ribs and displays them
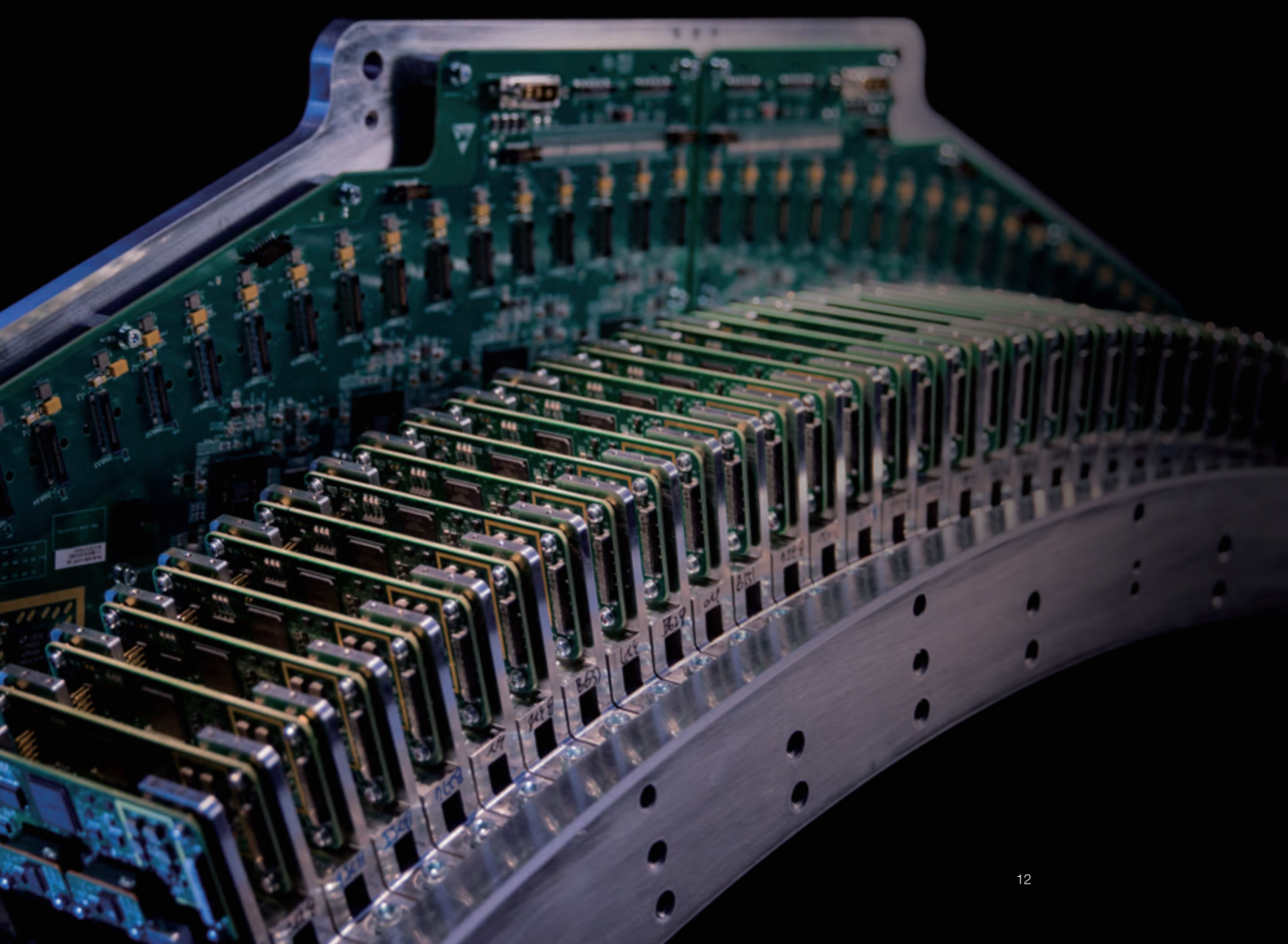separately or with the associated anatomy allowing efficient diagnosis of rib fractures.

Imaging with Care

Comprehensive dose control technologies to deliver optimized dose plans.

Z-Detector Architecture

High Resolution and Ultra-low Noise.

1 st Generation — Gas Detector / Split Design

> **2** nd Generation — Solid-State GOS detector / Split Design

> **3** rd Generation — Solid-State GOS detector / DOD Structure

> **4** th Generation — Digital Detector / Through-Silicon Via (TSV) Technology

Fully Integrated Design

Innovative Through-Silicon-Via (TSV) Technology.

cm to μm level signal conducting path shortening.

Ultra-low noise signal output.

0.55mm Pixel Size

0.55mm high resolution acquisition in all FOVs and collimations.

22mm coverage in Z-plane.
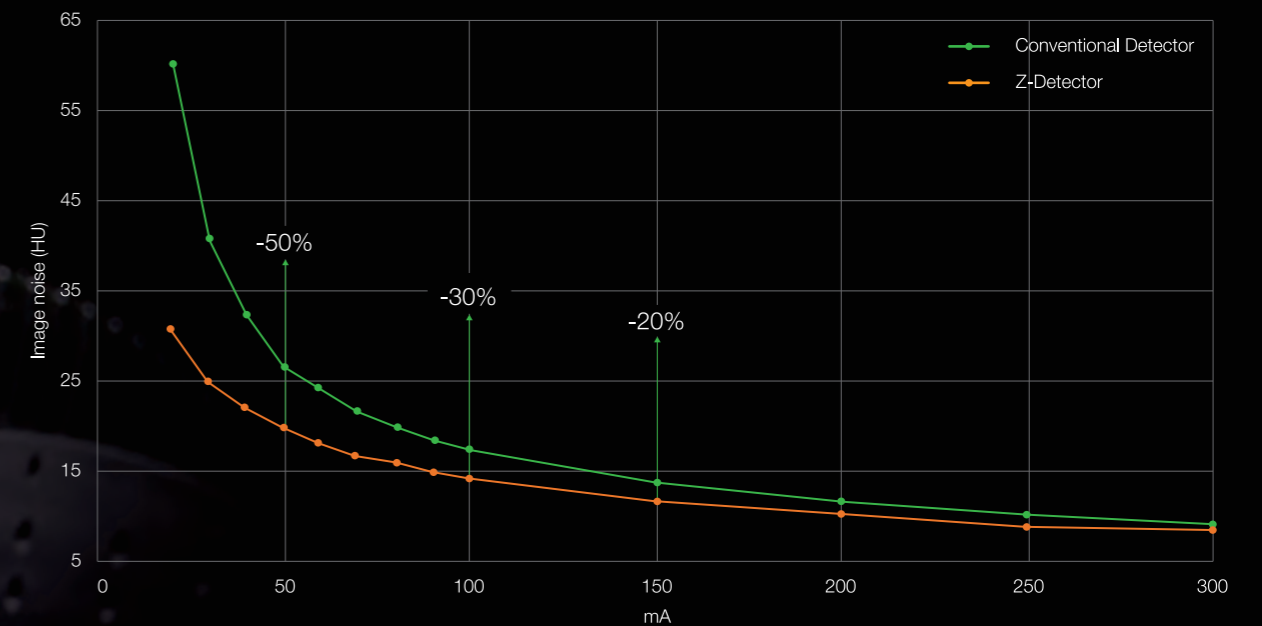
34560 large number of detector elements.

Image noise generated by Z-Detector and the conventional solid-state detector as measured and compared in CT scans using a 180-mm water phantom. The graph illustrates that a reduced noise level is obtained by Z-Detector within the entire range of mAs settings.

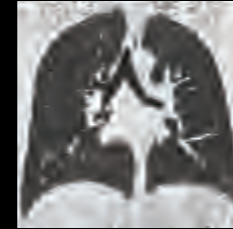# Comprehensive Dose Control
and Monitor Technologies

KARL 3D
Iterative Denoising

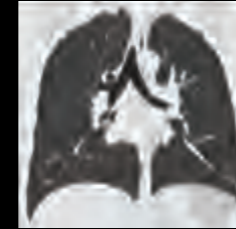Performed in both the projection and image spaces.
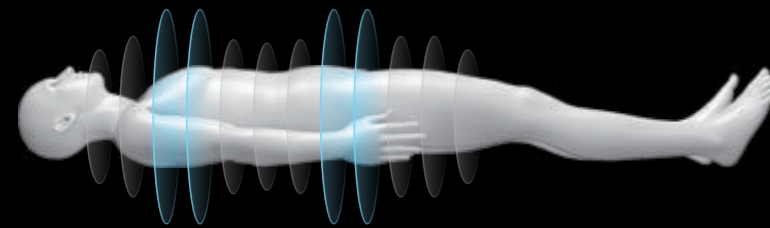
Reduce dose while preserving image quality.
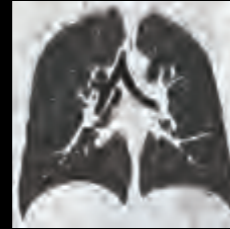
FBP, 120kV, 150mAs

FBP, 100kV, 10mAs

KARL 3D, 100kV, 10mAs

Real Time
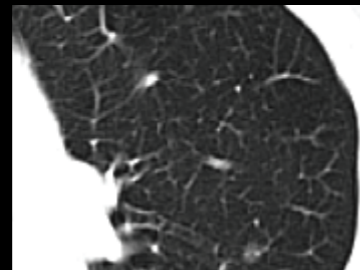## Scout

Produce more accurate scout scans.

Reduce unnecessary radiation dose to the patient.

uDose 3D
Dose Modulation

Based on anatomic structure information.

Optimized 3D dose distribution plan.

Dose
Warning

Individually set for every protocol.
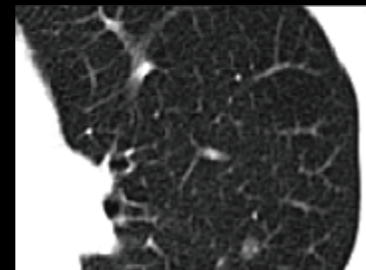
Compliance with NEMA XR29 standards.

70kV Scan
Mode

70kV Dose reduction for small BMI or younger patients.

Increase SNR for Iodine-based contrast agents.

70kV

120kV

Structured Dose
Report

Compliance with DICOM standards.

Seamless integration with third-party dose tools.

Broaden your Clinical Portfolio

Providing a wide spectrum of clinical applications.

One-stop
Screening Solution

The 40 x 0.55mm Z-Detector collimation delivers high definition images with low radiation dose and reduced motion artifacts, while the 1024 x 1024 reconstruction matrix provides local reconstruction with further refined details.
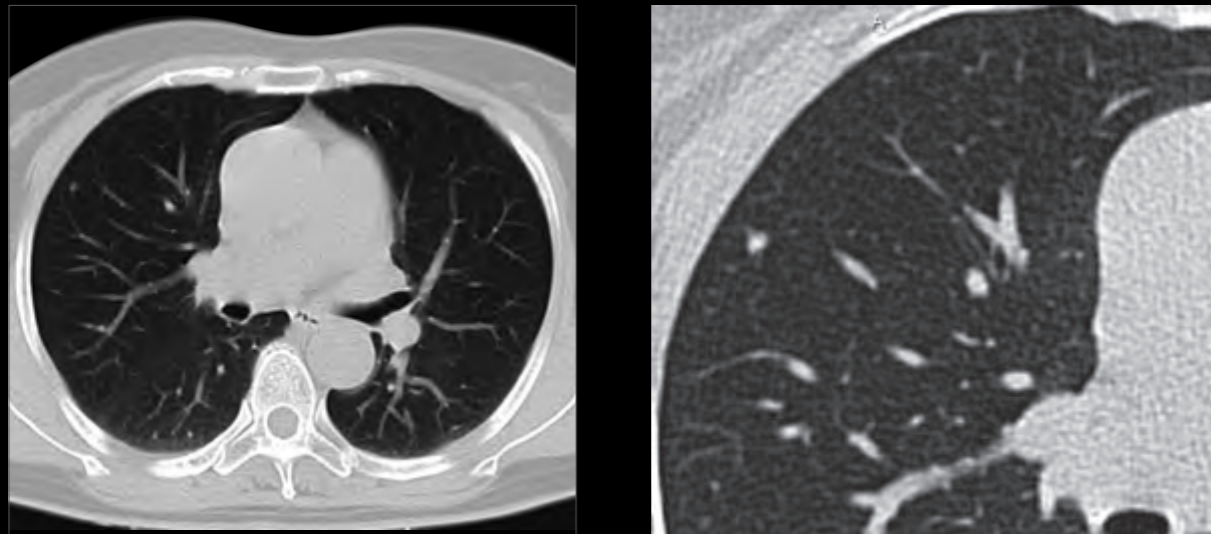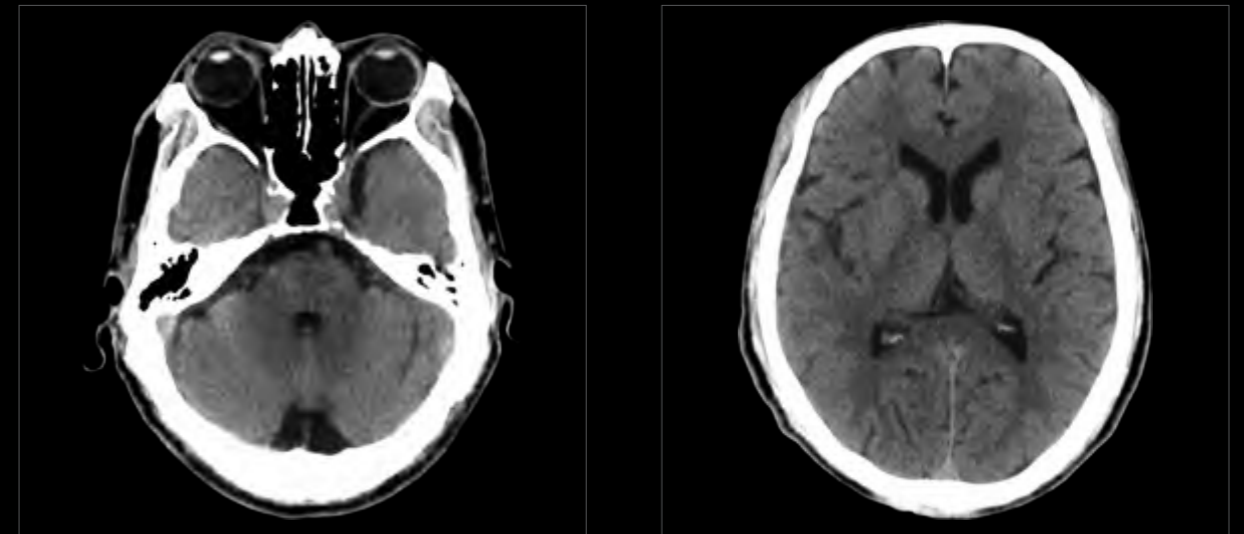

The Lung Nodule Analysis application segments, detects and measures suspected nodules and provides quantitative analysis results.
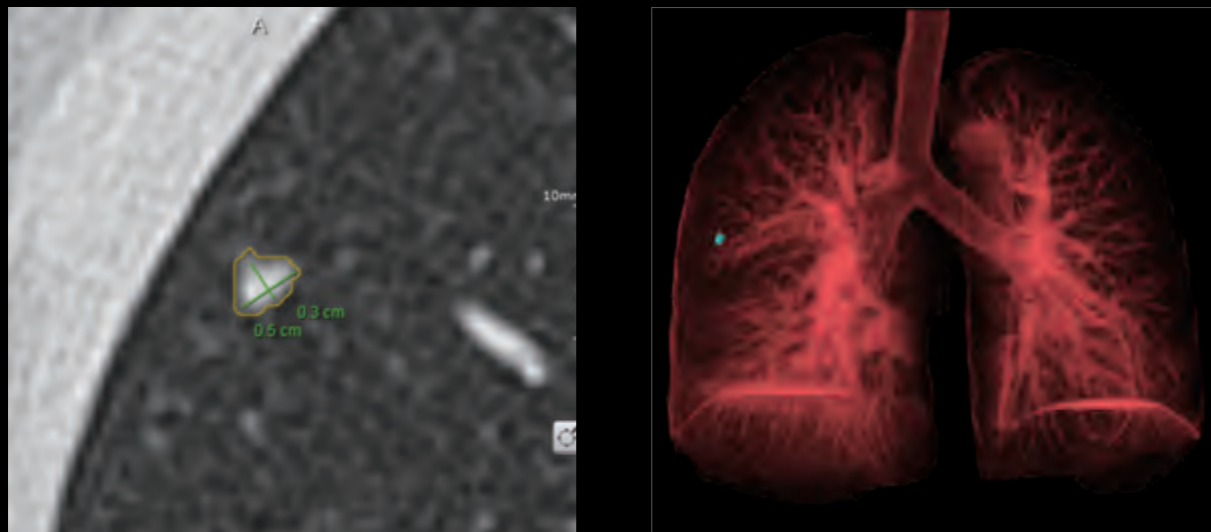

Clarity and Speed
for Neurology

The ultra-low electronic noise Z-Detector brings well-performed low contrast detectability to neurology scans. Good grey-white matter differentiation can be observed in the images below.
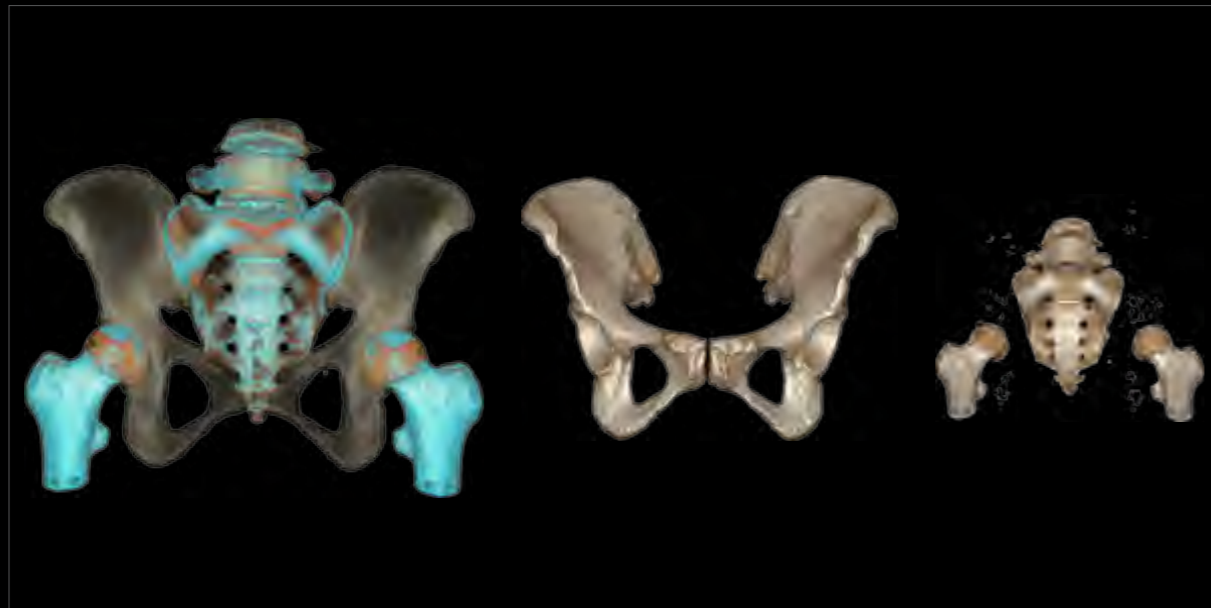

Scanning with 40 x 0.55mm collimation provides refined image details for contrast enhanced CTA exams and better capture of the optimal phase.
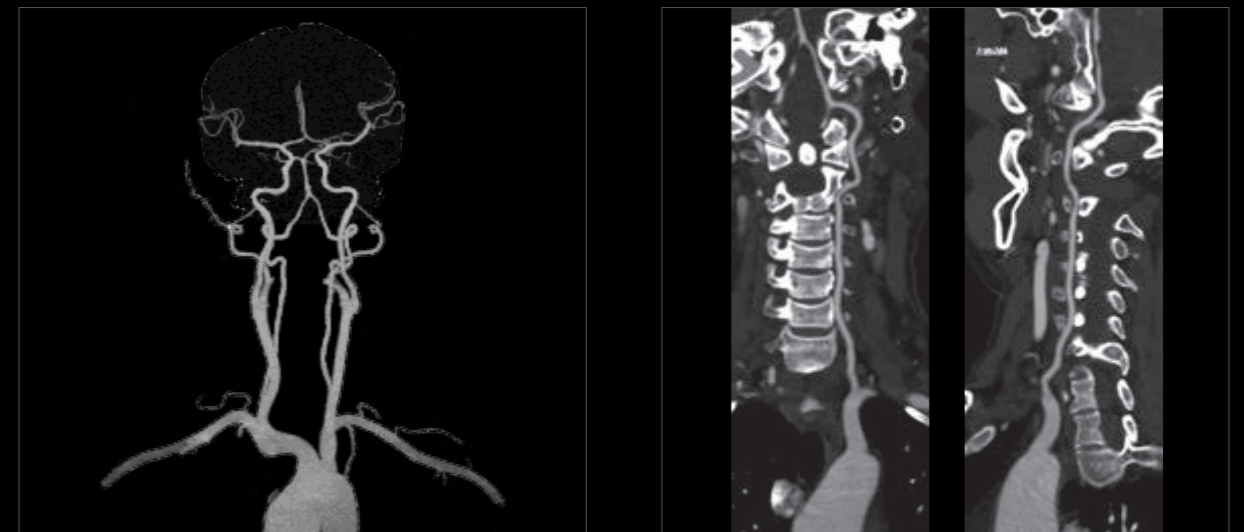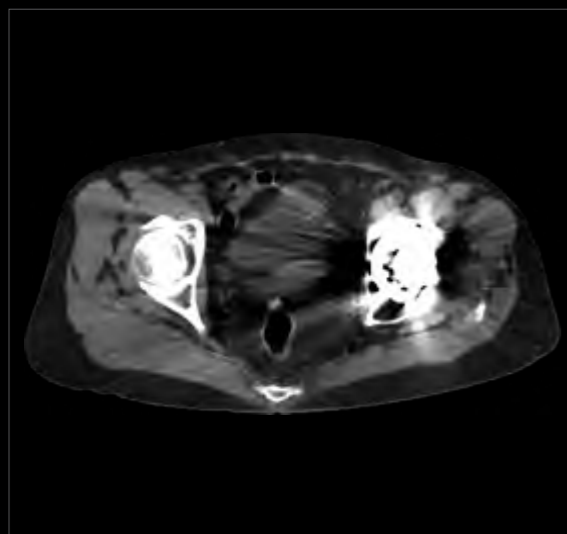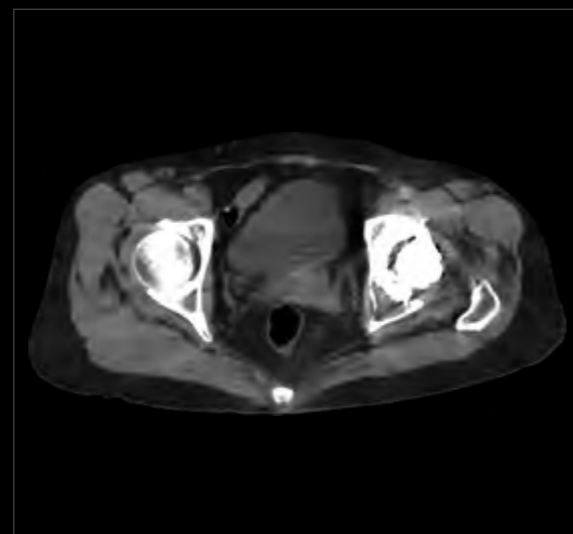
Comprehensive Orthopedic Imaging

Based on high quality orthopedic images,
uCT 528 provides comprehensive tools for bone structure editing.

The Metal Artifact Correction (MAC) technology greatly reduces
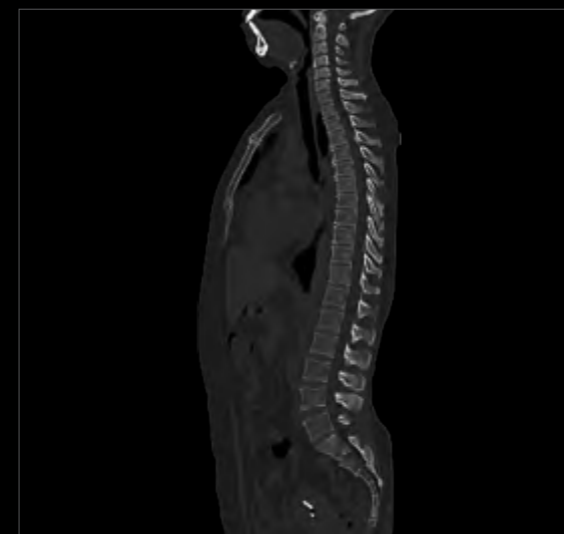artifacts caused by metal implants.

Before MAC

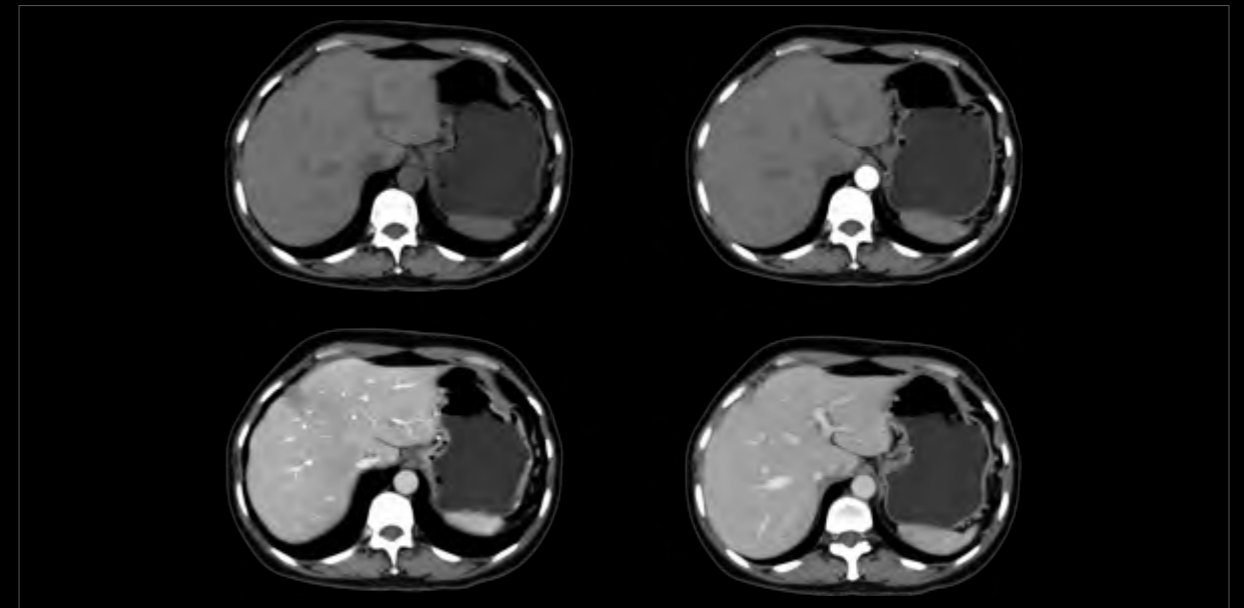*After MAC*

Handle Routine Scans with Ease

The 3.5MHU tube supports high-quality, multi-phase contrast scans as
well as large range scans such as whole-spine examinations.

CTA Capability Enhancement

The uCT 528 enables a wide spectrum of CTA studies that can potentially bring more patient referrals.

The 70kVp capability can lower both radiation and contrast doses to improve patient care.

Outstanding
Financial Performance

Reducing total cost of ownership for operation.

Reducing Total Cost of Ownership

Reliable Components

Light-weight tube with reliable design and good serviceability.

Self-cleaning carbon brushes for improved slip-ring reliability.

Small Footprint

uCT 528 requires a minimum installation area of 9m^2.

Green Mode

Switching the system into uECO mode during night or when the system is idle saves 30% power compared to conventional standby modes.
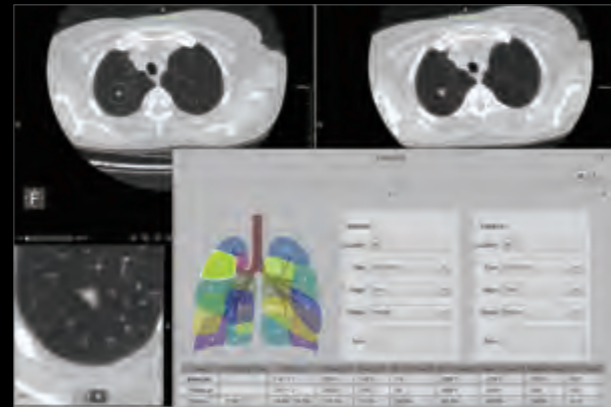
Integrated Advanced Applications
on the Console

Lung Nodule Analysis*

Nodule detection, segmentation and
measurement assistance.

Nodule quantitative analysis.
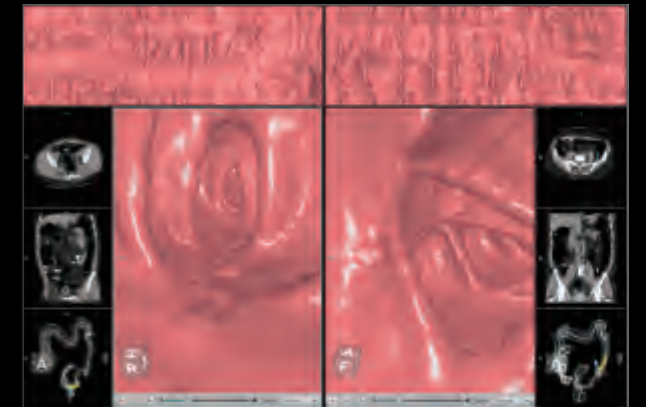
Follow-up analysis.

One-step structured report.

CT Colonoscopy*

Automatic colon segmentation.

Electronic colon cleansing.

Virtual endoscopy.

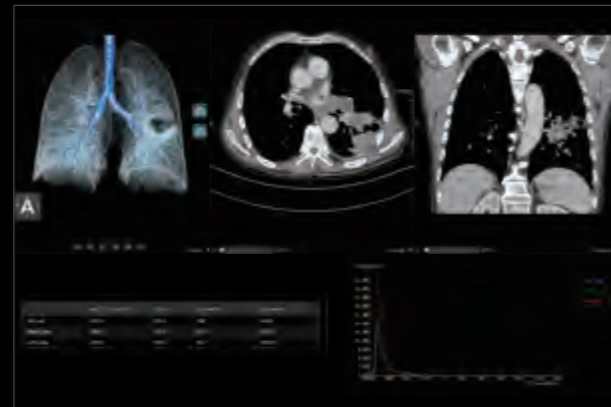
Lung Density Analysis*

Lung Extraction and Contour Editing.

Pulmonary Density and Volume Measurement.

Emphysema Ratio Quantification.

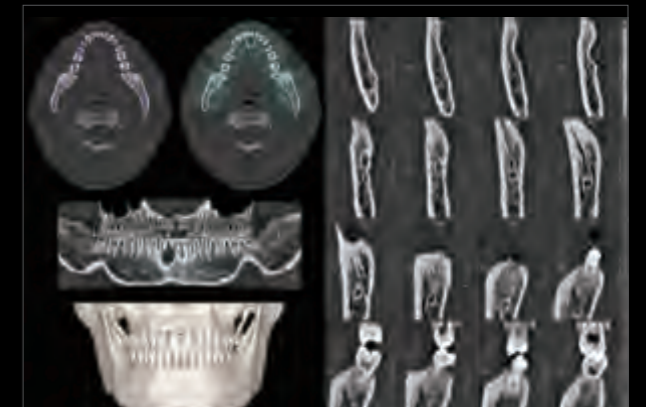Quantitative Data Analysis and Export.

Dental Analysis*
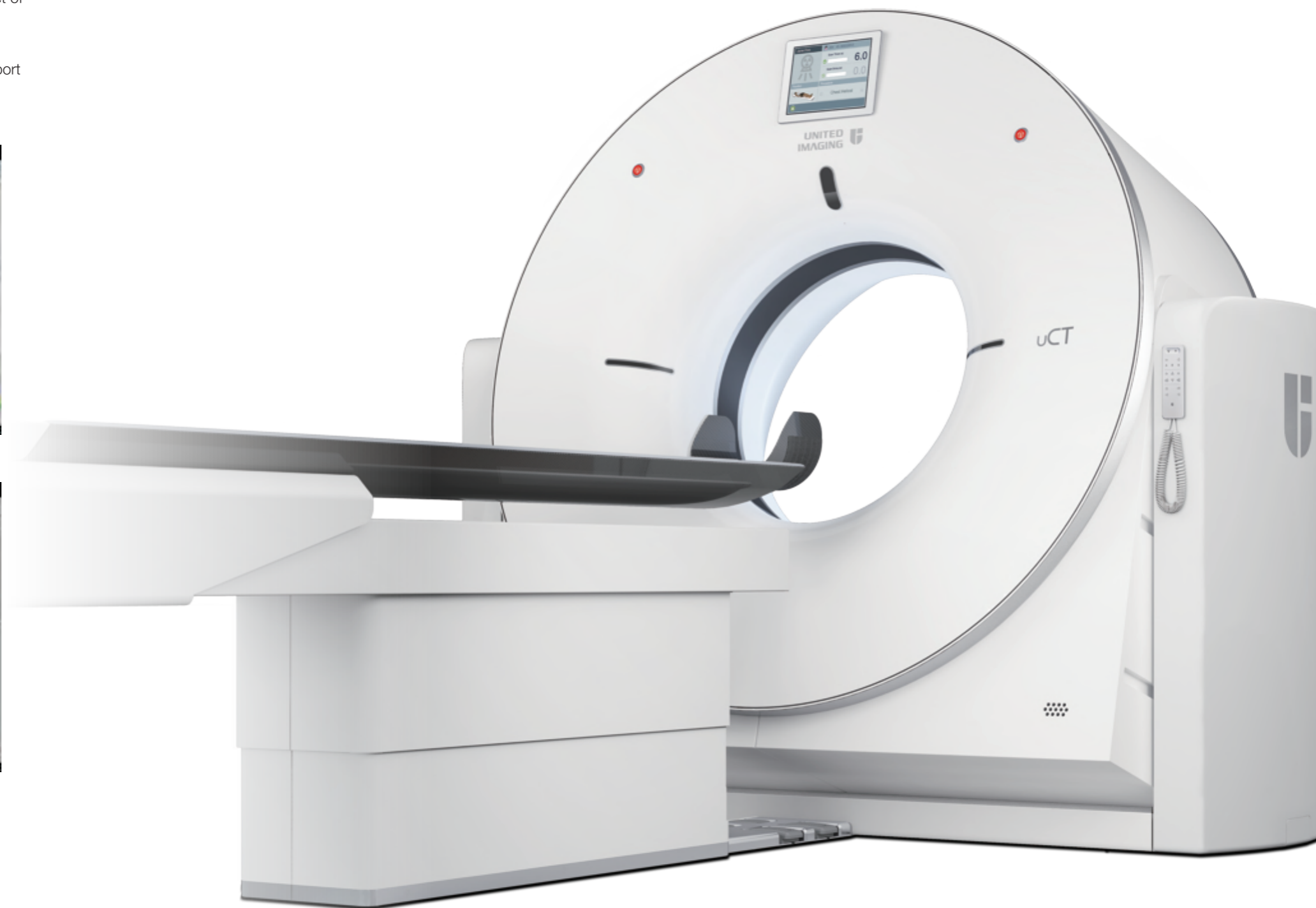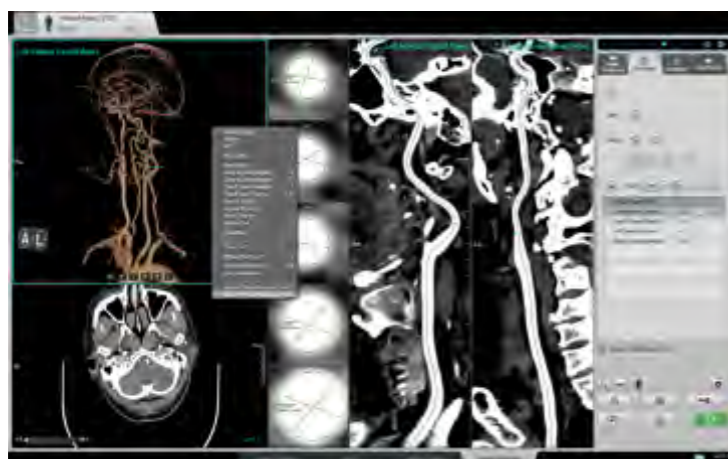
Panoramic Curve Plotting.

Nerve Line Marking.

Sectional View Analysis.

Integrated Report System on the Console

uCT 528 offers a customizable report system with a comprehensive set of documenting and archiving tools.*

This reduces manual and repeated operation procedures, shortens report turnaround time and helps to optimize your daily workflow.
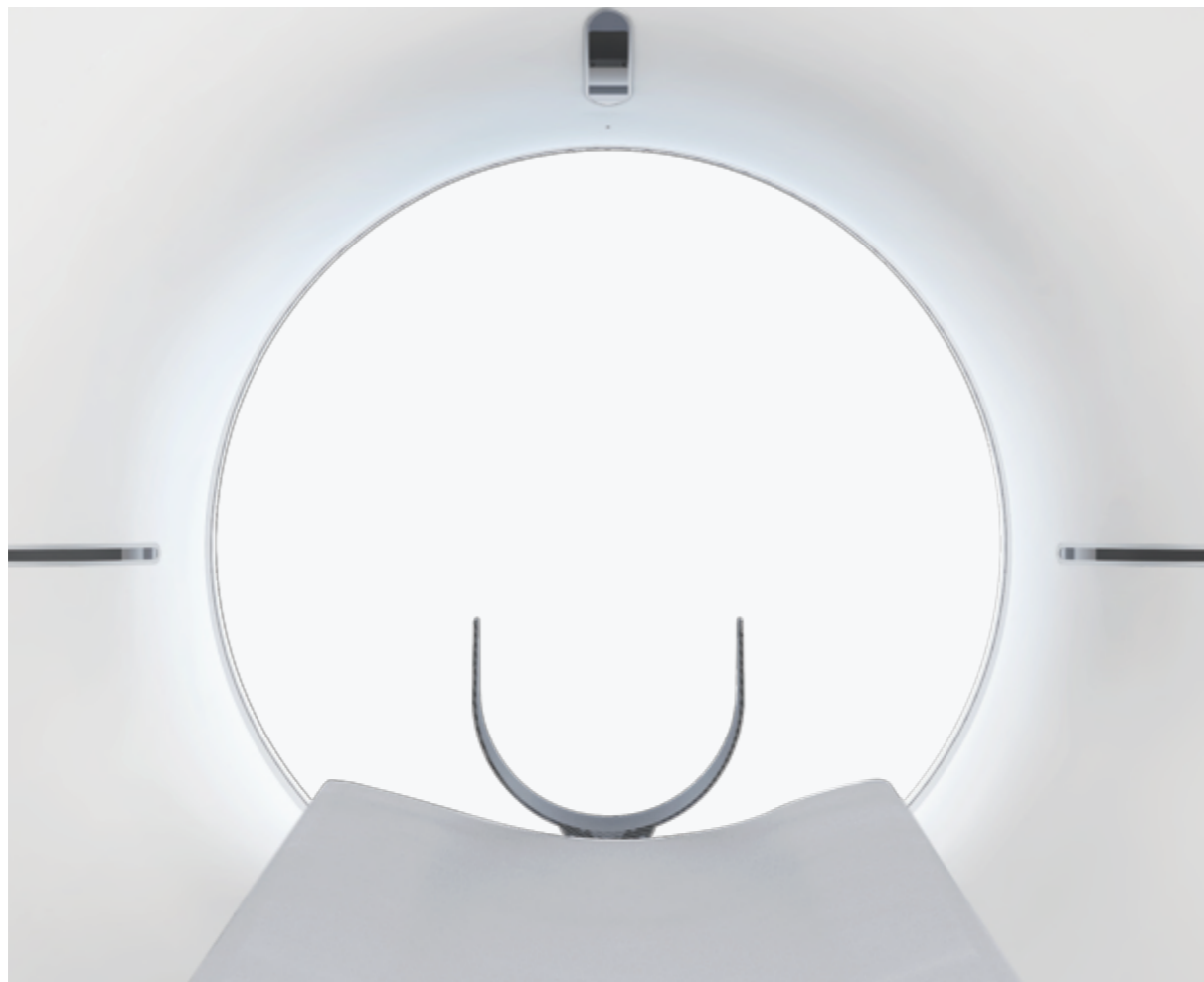
User in
Mind Design

Focusing on user experience, uCT 528 combines precise operation with a lightweight and artistic design. We bring aesthetic enjoyment and ease of use to the technology, delivering care, trust and respect through our design.

Aesthetic Pleasure

Our design scheme integrates eastern aesthetics with minimalism, presenting a seamless fusion of traditional and modern styling.

User-friendly Design

Our product design ultimately aims to deliver comfort, safety, efficiency, and ease-of-use. By applying ergonomic principles, we combine innovative design with perfect functionality in order to provide the best possible user experience, optimizing patient comfort during every examination.

Sophisticated Craftsmanship

Driven by the tenets of lightweight and precision design, we fine-tune every technological detail to embody the spirit of craftsmanship in every product.

ABOUT UIH

United Imaging Healthcare Co., Ltd. develops and produces a full portfolio of advanced medical imaging and radiotherapy equipment and offers medical IT and intelligent solutions. Founded in 2011 and headquartered in Shanghai, the company has subsidiaries and R&D centers across China, US, and other parts of the world. Half of its 3,300 employees work on research and development. To date, more than 3,000 hospitals worldwide are using UIH products.

To learn more, visit https://www.united-imaging.com