LARGEV

ALL IN ONE
HiRes3D Series
PROFESSIONAL
DENTAL CBCT

Management System
EN ISO 13485:2016

TÜVRheinland® CERTIFIED

www.tuv.com
Certificate Number:SX 2081048-1

CE 0197   RoHS   NMPA

HiRes3D Series
All In One

	Spatial Resolution up to 2.6 lp/mm	Super Large FOV 23×18cm	Multi-FOVs
Low Dose	Metal Artifact Correction	Fine Reconstruction	High-performance AI Reconstruction Algorithm	Implanting Simulation
Small Focal Spot X-ray Tube	High-Sensitivity Detector	Six-dimensional Power Seat	Electric Chin Rest / Forehead Rest	360° Scan
TMJ Mode	Generated Panoramic Images Automatically	S/M/L Three Shooting Modes	3D Facial Scan	Dental Model Scanning

Multi-Fovs

HiRes3D is an extraordinary dental CBCT with full functions that fulfills a variety of clinical requirements and diagnostic needs.

HiRes3D-Max: An ideal one with the largest FOV to meet the full oral diagnostics needs in oral and maxillofacial surgery.

HiRes3D-Plus: An amazing one with the larger FOV and the 3D facial scan system in the orthodontics and plastic surgery.

HiRes3D: A classical one with the flexible FOV in the implant dentistry and ENT.

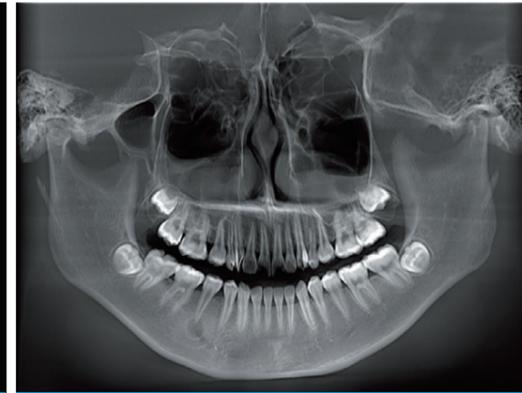|				
23×18cm	16×10cm	16×5cm	8×8cm	**HiRes3D-Max**
20×17cm	16×10cm	16×5cm	8×8cm	**HiRes3D-Plus**
16×15cm	16×8cm	8×8cm	5×8cm	**HiRes3D**

SUPER-LARGE FOV

Acquires high-definition 3D image after one single scan.

It covers the entire maxillofacial region.

CT/PAN/CEPH

LARGEV

| CT | PAN | CEPH |

◆ 360° scan

◆ Small focal spot X-ray tube and high sensitivity detector for high-definition images

◆ S/M/L three shooting modes are optional to respond to the different patients' needs

◆ Rapid reconstruction of high-definition images within 30 seconds

◆ Super large FOV with no stitching

◆ Panoramic images generated automatically

◆ Cephalometric PA and LAT generated automatically

| 3D Facial Scan(Optional) | Dental Model Scanning(Optional) |

◆ 3D facial scan System provides the realistic facial 3D data, which combines with CBCT data.

◆ Dental model scanning function supports scanning impressions and plaster models. The precision can reach 100 μm. It can generate STL 3D digital models for oral implants, orthodontic treatment, etc.

HD Resolution

Low Dose

HD

◆ The highest resolution reaches 2.6 lp/mm and the microstructure of the oral cavity can be seen

◆ The voxel size is 0.05-0.3mm optional

◆ Enhanced image by small focal spot X-ray tube

◆ Detector equipped with HD pixels, high sensitivity and high image acquisition rate

◆ High-performance AI reconstruction algorithms promote the images to be more precise and faster

It fully explores the perfect balance between image quality and radiation dose. Low dose model provides lower radiation especially for children and elders.

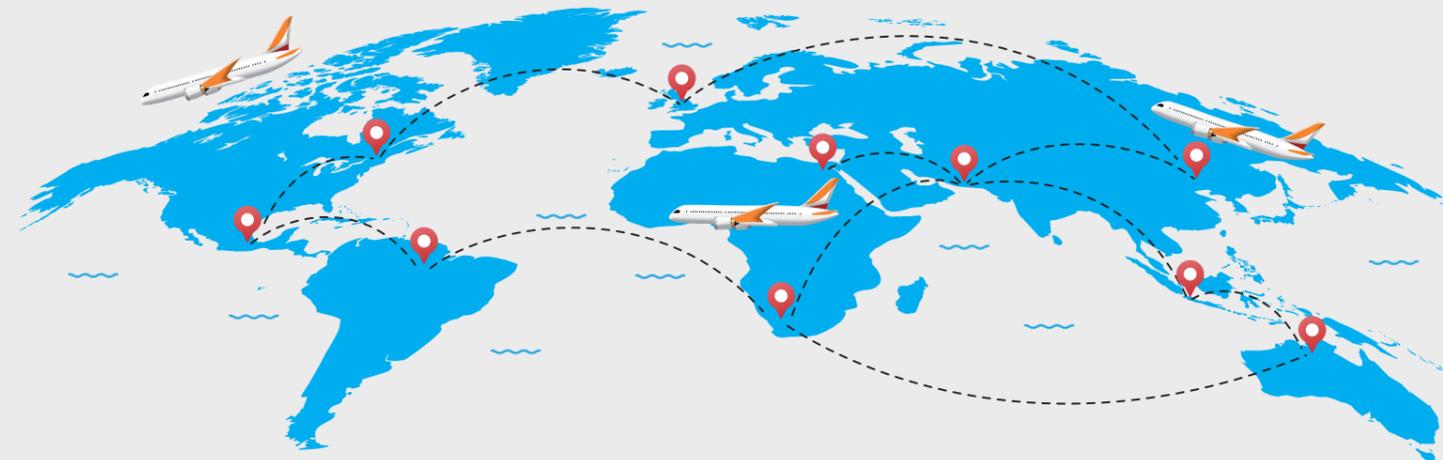Radiation dose in one oral CBCT scan ⟵⟶ Radiation dose from one flight
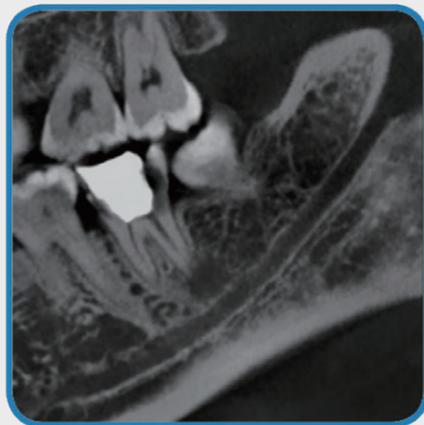
Beijing→Paris
About 11h

Beijing→Bangkok
About 4h30mins

Beijing→Hong Kong
About 3h30mins

Comfortable Experience

STABLE EFFICIENT PRECISE

Seated CBCT
◆ HiRes3D Series provides face-to-face communication
◆ The 3D laser positioning system is easy to achieve accurate targeting of the scanning area

Six-dimensional Power Seat
◆ Effectively reduce motion artifacts, resulting in clearer images
◆ Bring patients a relaxed scanning experience, more convenient and more comfortable
◆ The movement control precision is up to 0.1mm, which makes the process faster and more stable

Fully Electric Chin Rest / Forehead Rest
◆ It can avoid soft tissue extrusion while automatically correcting the patient's posture
◆ Provide free switching between chin rest and forehead rest and convenient positioning
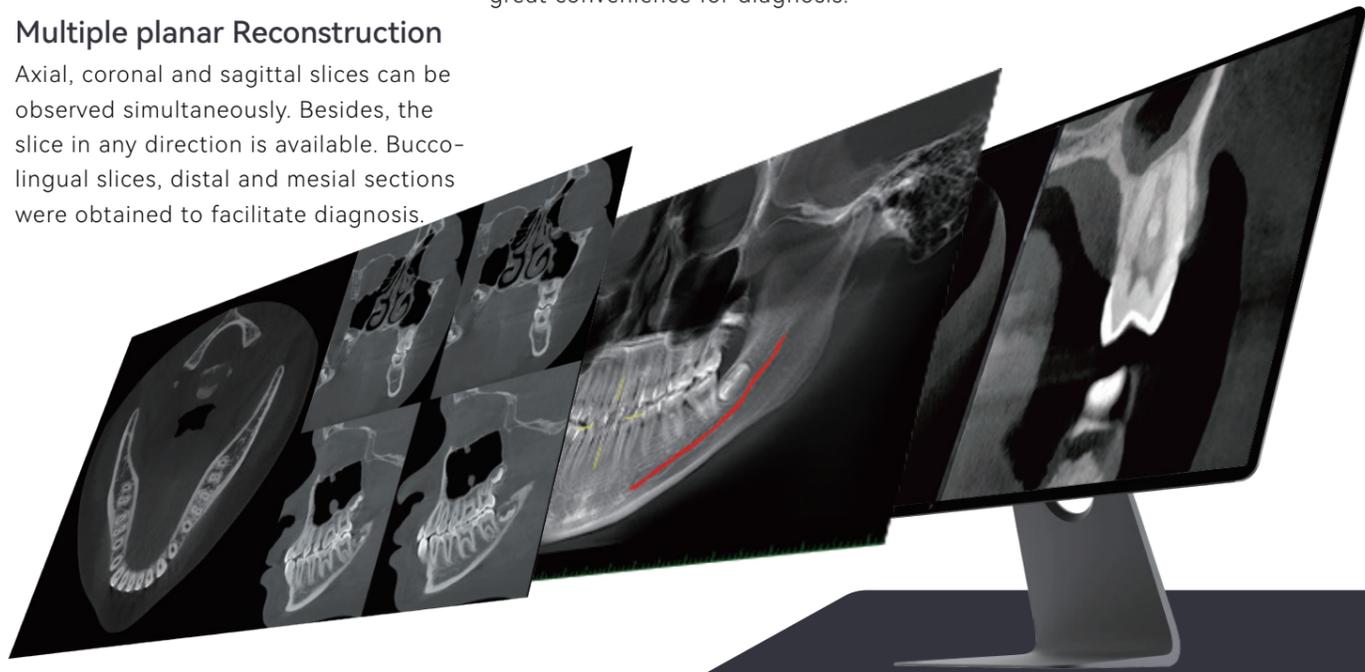
Composite Fabric Seat
◆ The seat is made of special composite fabric that is soft and breathable, with natural rebound

SmartVPro
DENTAL RADIOLOGY SOFTWARE

3D Fine Reconstruction
Local fine reconstruction is conducted in the designated area.

AI+Nerve
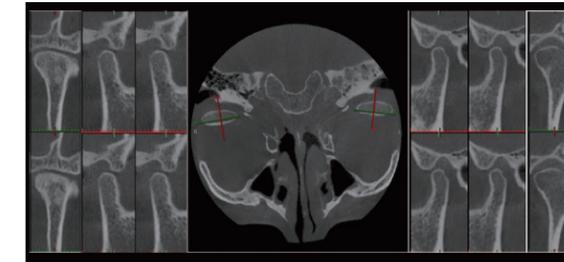The system can label the neural tube automatically in the CT image, providing great convenience for diagnosis.

Multiple planar Reconstruction
Axial, coronal and sagittal slices can be observed simultaneously. Besides, the slice in any direction is available. Bucco-lingual slices, distal and mesial sections were obtained to facilitate diagnosis.
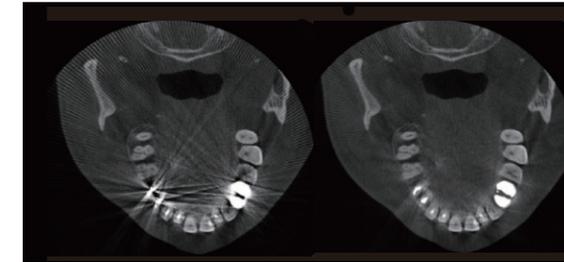
Metal Artifact Correction
With the new T-MAR correction module for metal artifact removal, the system corrects metal artifacts intelligently. It avoids overmodification and saves the original clinical data.

Implanting Simulation
The bone and bone mass in the implant area will be evaluated by dental 3D images using HiRes3D. The neural tube will be highlighted automatically, which presents therelationship between the implant and the neural tube. This is a better way to approach a successful implant surgery.
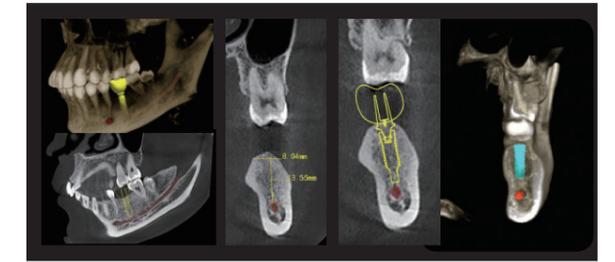
TMJ Diagnosis
SmartVPro software has a visual pattern of comparing the left and right joints, allowing doctors to evaluate the diagnosis and treatment effect on temporomandibular joint diseases.
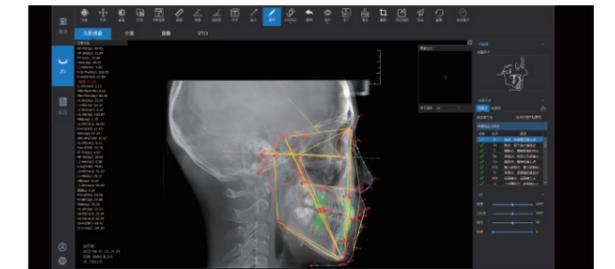
CEPH Measurement(Optional)
The neural network is trained by mega data, which automatically identifies orthodontic anatomical landmark points, draws anatomical structures and outputs measurement reports according to the selected measurement methods.

Airway Measurement
The airway is segmented automatically, which calculates the volume and the narrowest area of the airway.
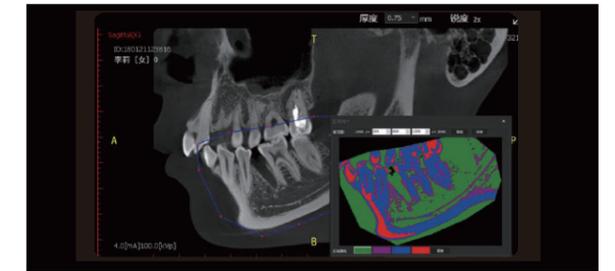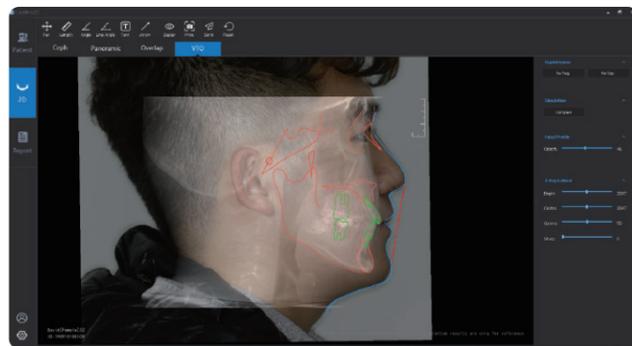
Regional Statistics
Used to assess bone mineral density in selected areas.

CephPro3D
ORTHODONTIC SOFTWARE

VTO
CephPro3D superimposes patient´s cephalic images with side photos. It can be fine-tuned through the anchor point to ensure that the image and photos are superimposed completely. Intuitive simulation of the orthodontic effect is generated by one-click.

Orthodontic Case Report
It integrates the basic information of the patients with oral and facial photos at different stages of treatment. Meanwhile, patients´ eyes can be covered automatically, which protects their privacy. Case reports can be generated with one-click, which is convenient for doctors to manage orthodontic cases.

### Customizing Measurement Analysis Methods
There are 19 measurement methods built into the software, which can be selected by doctors according to the actual clinical situation. Meanwhile, the software supports the optional addition of measurement items and the formation of new measurement methods in any combination, thus facilitating flexible and effective targeted analysis of clinical cases.

### Intelligent Tracking of the Clinical Stage
The overlapping maps at different treatment stages are obtained accurately. It conforms to the standard of the American Board of Orthodontics (ABO), which meets the diagnostic needs. The tracing contrast shows the treatment effect intuitively, promoting smooth communication between doctors and patients.

Visual Presentation of Report with the Clear Measurement Effect
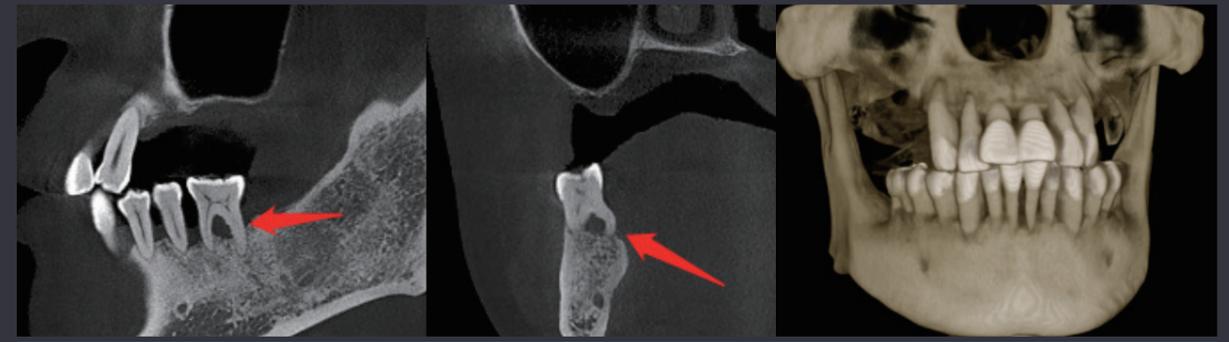The report is generated with just one click. It promotes communication between doctors and patients.
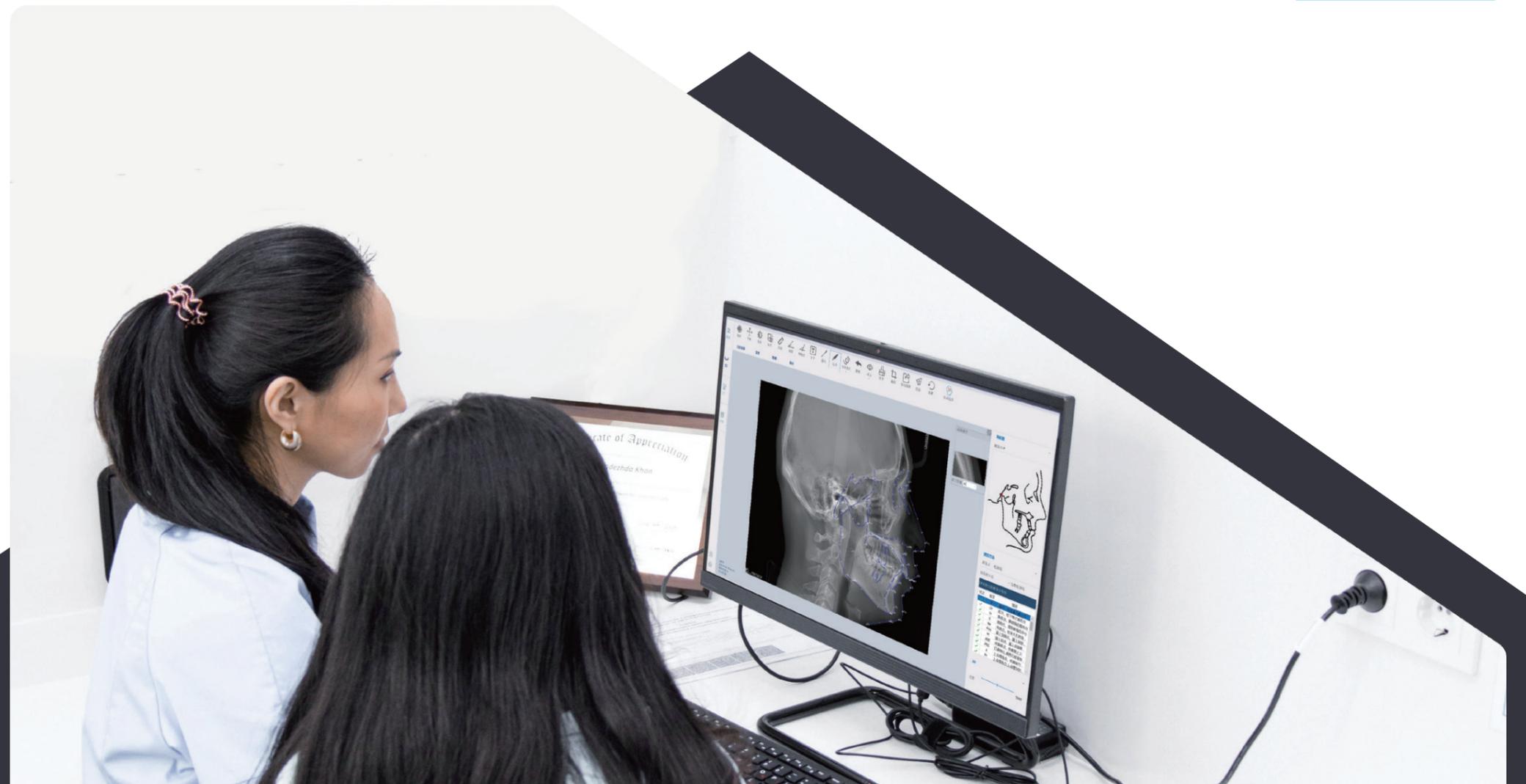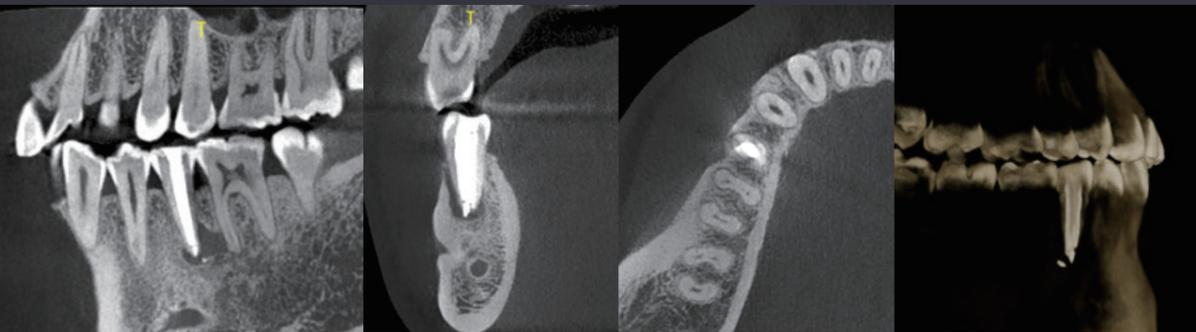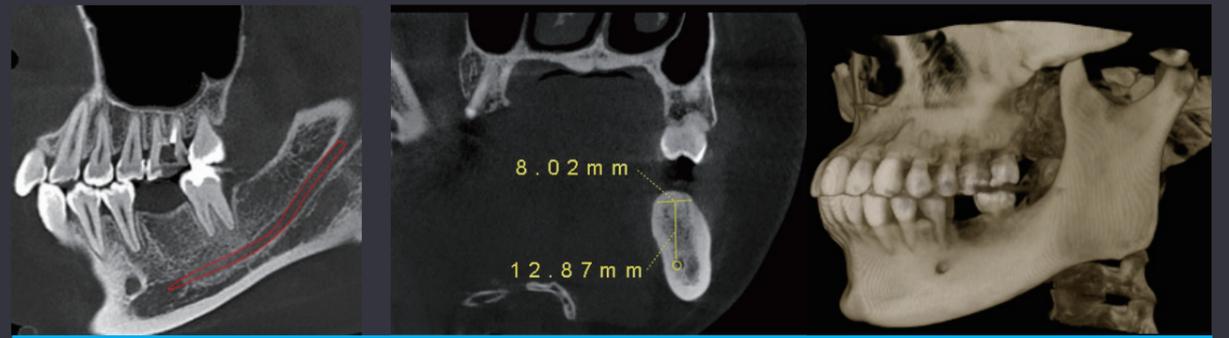
Clinical Applications
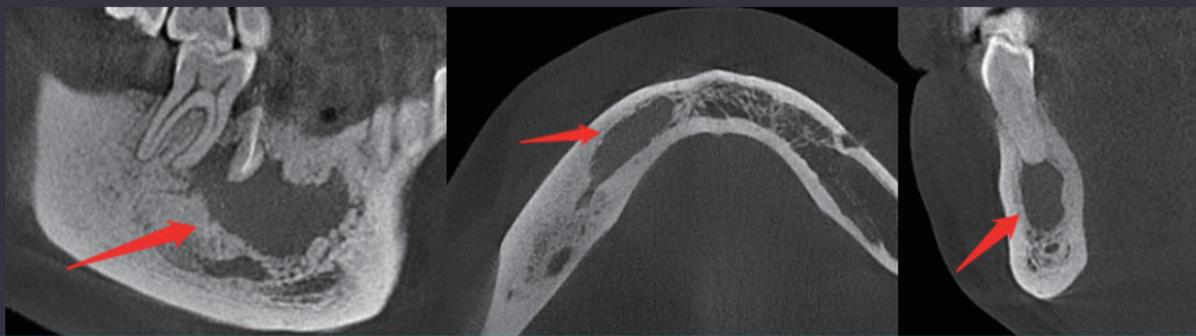
Examination of Cysts and Tumors

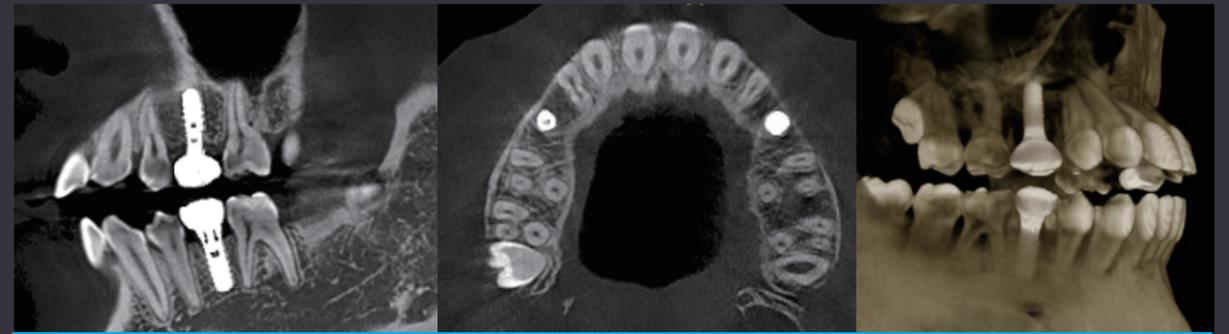Examination of Periodontal Diseases

Examination of Root Canal Filling

Diagnosis and Planning Design before Implantation
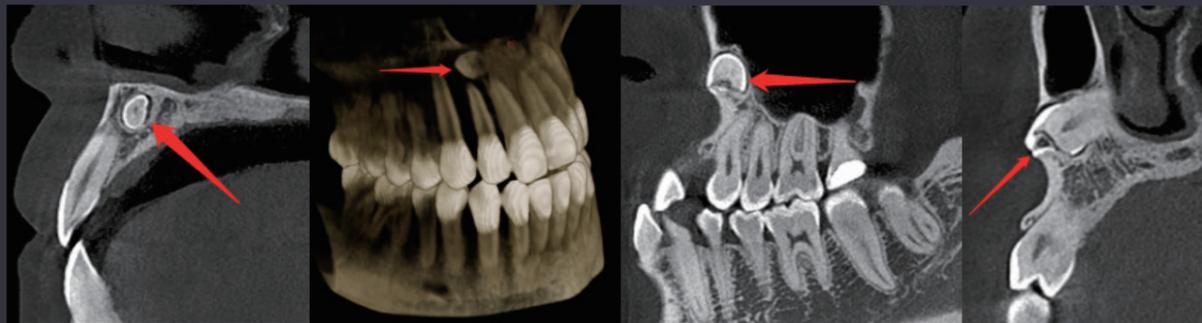

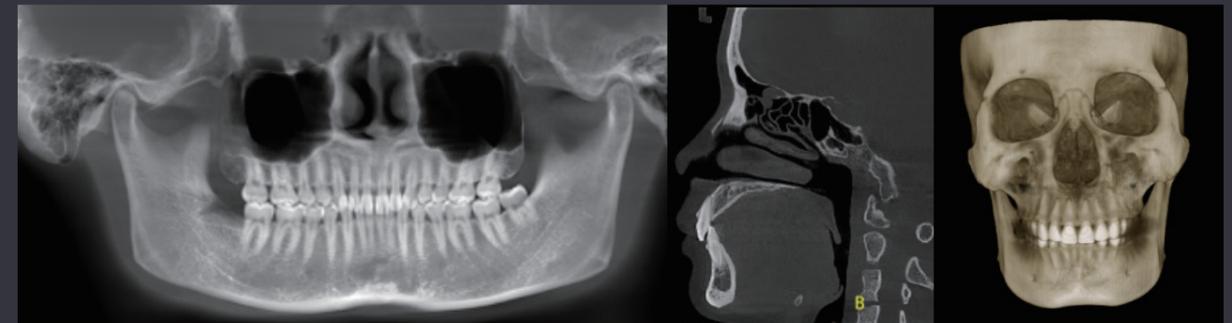Examination of Endodontic Diseases

Evaluation after Implantation
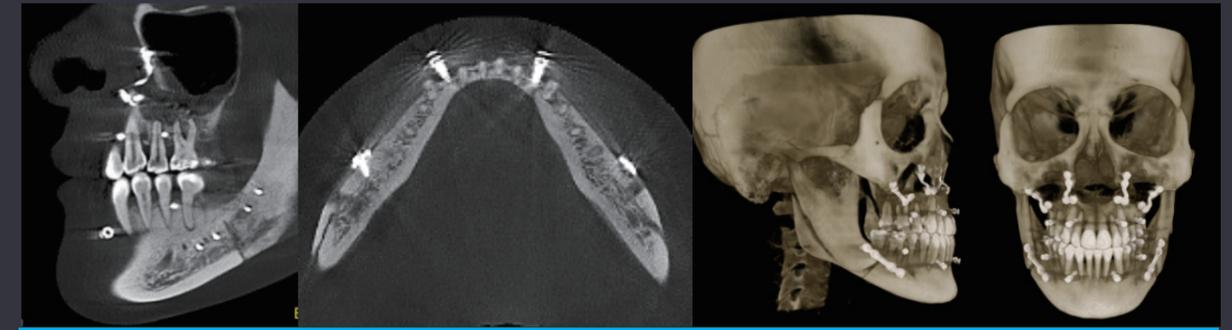
Clinical Applications

Positioning of Impacted and Supernumerary Tooth
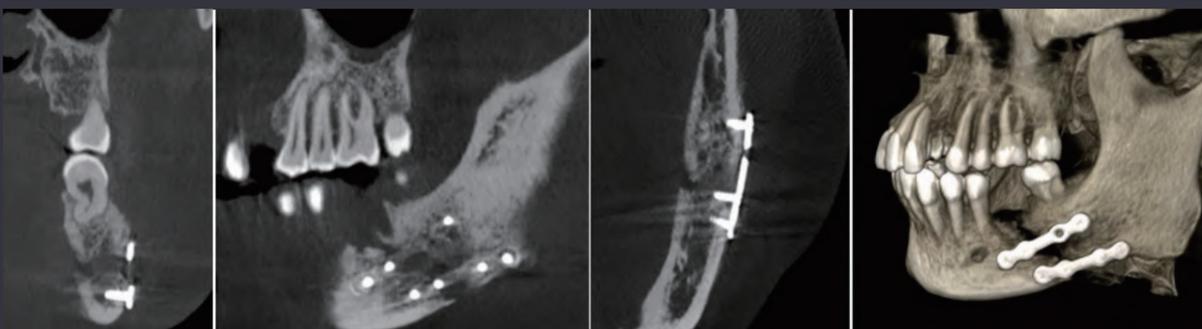

Orthodontics Examination

Examination of Odontoma Ameloblastoma

Orthognathic Examination

Examination of Jaw Fracture

ENT Diagnosis

Milestone

2011 LargeV Instrument Corp., Ltd. was founded on March 11.

2012 HiRes3D, the first seated Chinese CBCT model, was approved to enter the market.

2013 Passed TüV ISO13485 quality management system certification and CE certification. Achieved the title of " National High-tech Enterprise."

2015 Awarded the first level prize of "Technological Invention" by the Chinese Society for Stereology Science and Technology. The first Chinese CBCT debuted at the International Dental Show (IDS) in Cologne, Germany.

2016 The Multifunction Dental CBCT Smart3D was granted certification from NMPA.

2017 HiRes3D-Plus and HiRes3D-Max, professional dental CBCT models with super-large FOV were certified by NMPA.

2018 Awarded with "Edgy Technology Enterprise" by Beijing Pharmaceutical Profession Association and selected as "Zhongguancun Pioneering Technology Enterprise."

2019 SmartVPro, the first professional dental CBCT radiology software in China, was certified by NMPA. CephPro3D, the first dental cephalometric analysis software, was certified by NMPA.

2020 Zhejiang LargeV Instrument Corp., Ltd. was put into operation.

2021 Smart3D-X won the German iF Design Award.

2022 Ultra3D, the world's first CBCT with dual-source and dual-detector was launched. Ultra3D has won the Red Dot Design Award.

Specifications

Model	HiRes3D	HiRes3D-Plus	HiRes3D-Max
Field of View (mm x mm)	160 x 150 160 x 80 80 x 80 50 x 80	200 x 170 160 x 100 160 x 50 80 x 80	230 x 180 160 x 100 160 x 50 80 x 80
Voxel Size (mm)	0.25 0.25 / 0.125 0.125 / 0.0625 0.1 / 0.05	0.3 0.25 / 0.125 0.2 / 0.1 0.125 / 0.0625	0.3 / 0.15 0.25 / 0.125 0.2 / 0.1 0.125 / 0.0625
Spatial Resolution	2.6 lp/mm	2.4 lp/mm	2.2 lp/mm
Reconstruction Time	≤ 30 s	≤ 40 s	≤ 40 s
Tube Current (mA)	min: 2 max: 10 (60 kV)		
Tube Voltage (kV)	min: 60 max: 100 (6 mA)		
Scan Time	25 / 12.5 / 15.625 / 18.75 (s)		12.5 / 12.5 / 15.625 / 18.75 (s)
Focal Spot Size	0.5 (IEC60336)		
Sensor Type	CMOS Flat Panel Detector	α-Si Flat Panel Detector	
Sensor Size	13 cm x 13 cm	16 cm x 16 cm	26 cm × 21 cm
Unit Dimensions	1825 × 1077 × 2109 mm (5.99 × 5.53 × 6.92 ft)		
Weight	340 kg (749.57 lb)		
Packing Size	Case 1: L,1930 × W,800 × H,1300 mm (6.33 × 2.62 × 4.27 ft) 304 kg (888.46 lb) Case 2: L,1970 × W,1270 × H,1170 mm (6.46 × 4.17 × 3.84 ft) 290 kg (639.34 lb)		
Power	single-phase, AC220V/230V, ±10%, 10A, 50Hz/60Hz, ±1Hz		

※The data are subject to change without notice

HiRes3D Series

1077 mm(3.53 ft)

2109 mm(6.92 ft)

812 mm(2.66 ft)

1825 mm(5.99 ft)