MORITA

3D Accuitomo 170

Medical Model

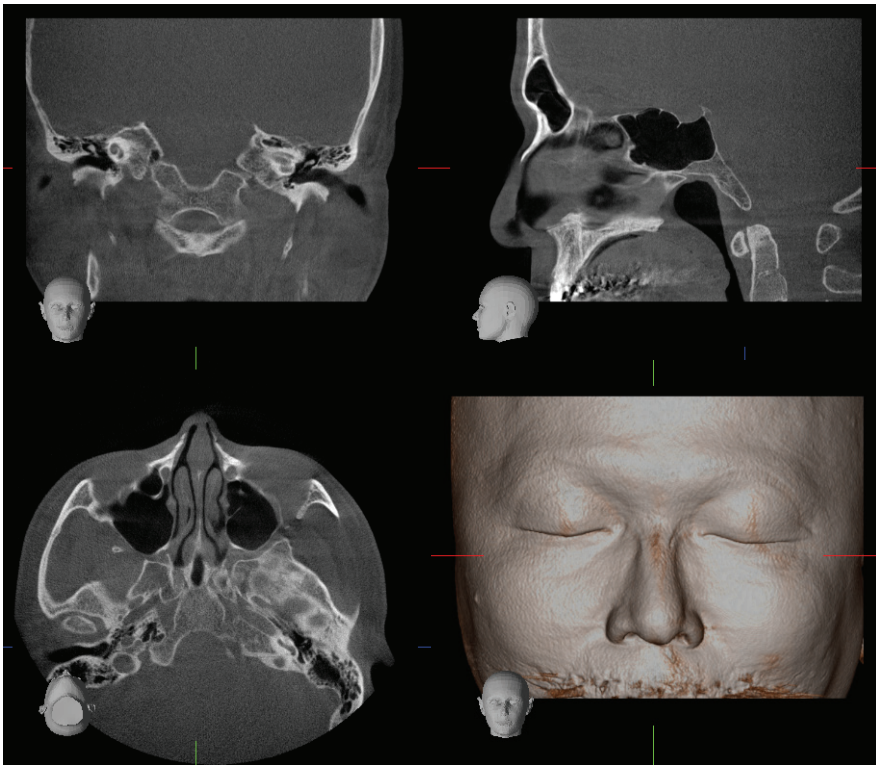
Thinking ahead. Focused on life.

3D Accuitomo 170

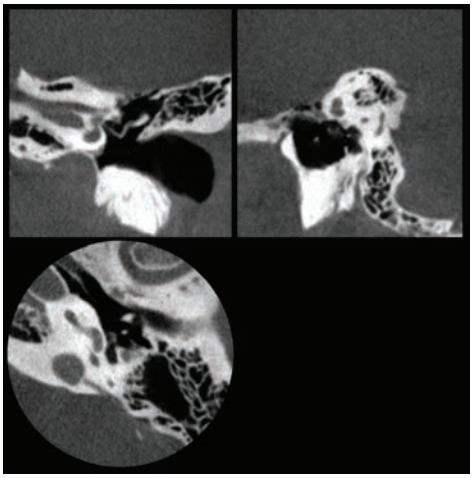
3D Accuitomo

80 µm for unsurpassed image clarity

The 3D Accuitomo offers unsurpassed high resolution images with wide fields of view. Its super-fine minimal voxel size of just 80 µm allows diagnosing even the most subtle details of the temporal bone, nasal cavities, paranasal sinuses, mandible, and teeth.

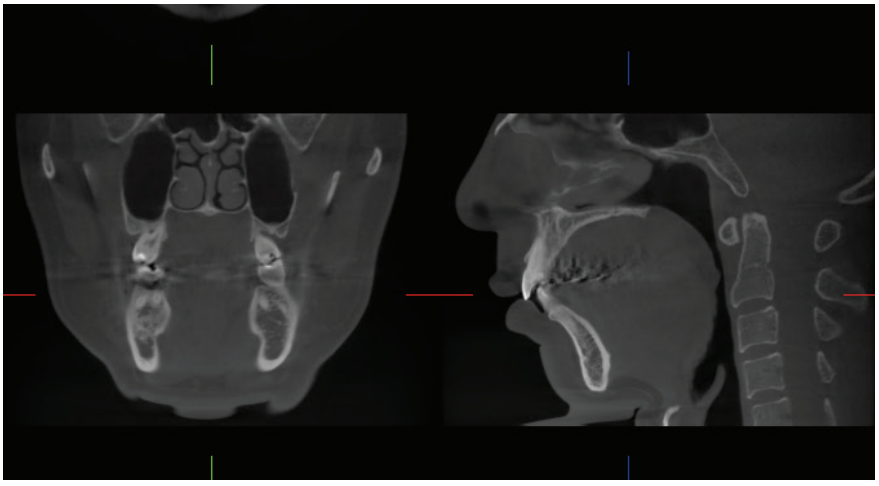


Ø170 × H 120 mm (250 µm)



Ø40 × H 40 mm (80 µm)

Unsurpassed high resolution image with minimal voxel size of 80 µm
The minimum voxel size of 80 µm ensures clear, high resolution images even when magnified.



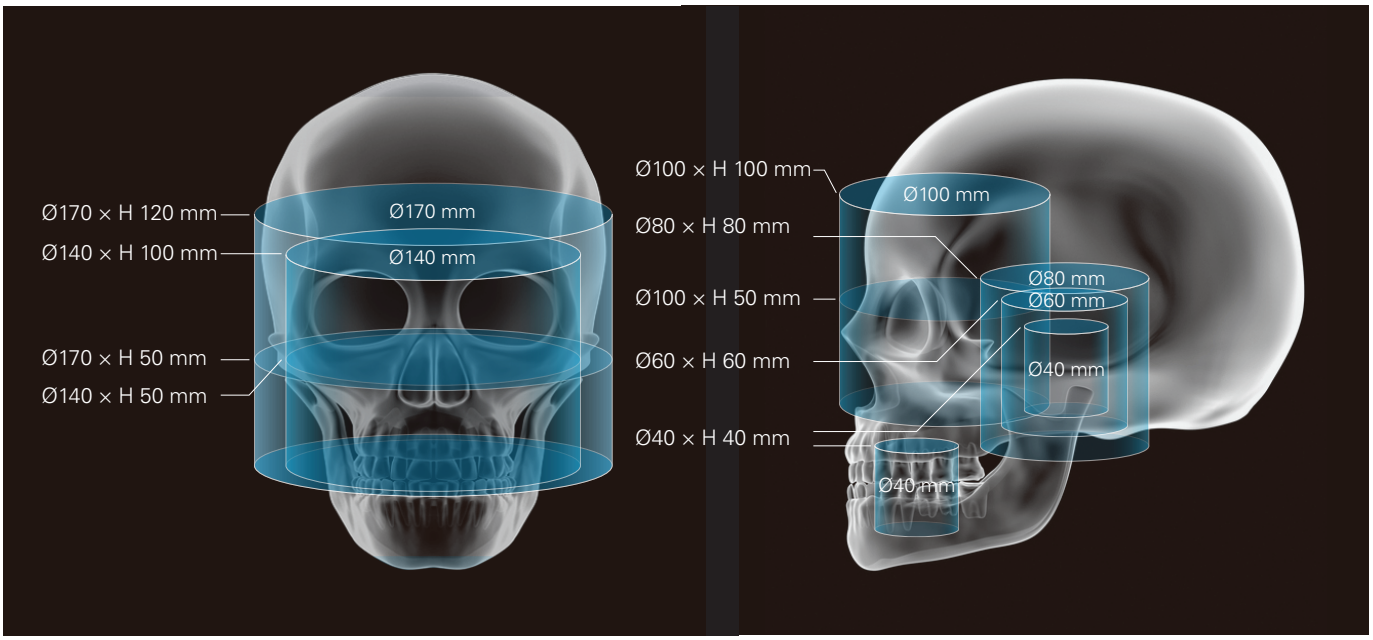
Ø170 × H 120 mm (250 µm)

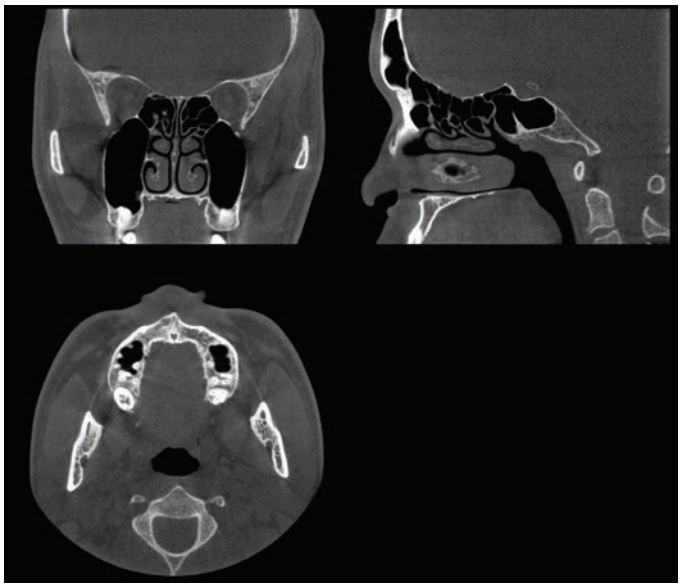
High Resolution Mode (80 µm)

Various Fields of View

9 fields of view for flexible scanning from local to large areas

The 3D Accuitomo is equipped with 9 FOVs (fields of view) that allow flexibility when scanning patients with a variety of diagnostic needs and clinical indications, from a large area (Ø170 × H 120 mm) that covers the maxillofacial region to a local area (Ø40 × H 40 mm). Reducing exposure dose is possible by selecting the most suitable FOV.





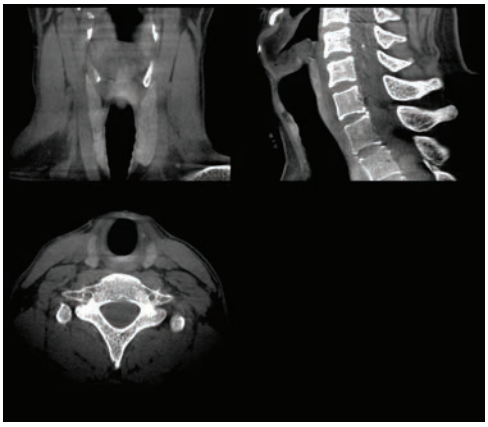
Standard Mode Ø170 mm × H 120 mm

Fields of View

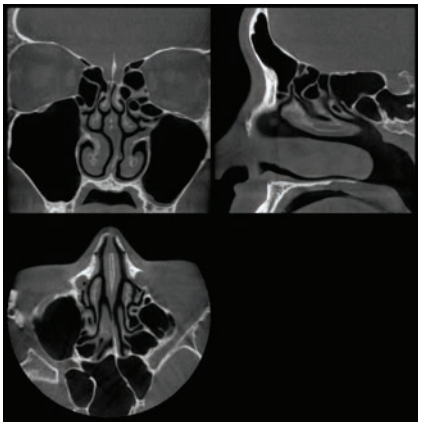
FOV	Voxel Size
Ø40 × H 40 mm	80 µm
Ø60 × H 60 mm	100 µm
Ø80 × H 80 mm	125 µm
Ø100 × H 50 mm	160 µm
Ø100 × H 100 mm	
Ø140 × H 50 mm	200 µm
Ø140 × H 100 mm	
Ø170 × H 50 mm	250 µm
Ø170 × H 120 mm	

High resolution even at large FOVs

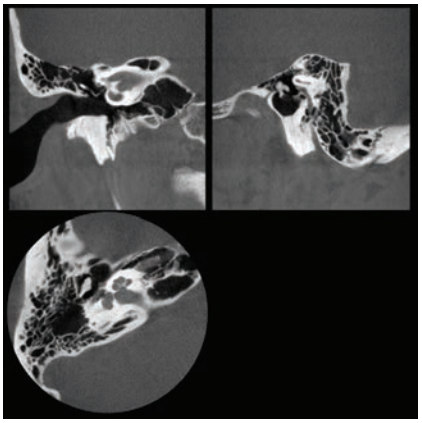
The minimum voxel size can be selected from 80 µm, 100 µm, 125 µm, 200 µm, or 250 µm depending on your diagnostic needs and clinical indications. The 3D Accuitomo is able to provide high resolution with less distortion, even at large FOVs. The FOV can be offset so that even the temporal bone region can be positioned at the center of the FOV. This results in well-focused, high resolution images.



Ø140 × H 100 mm (200 µm)



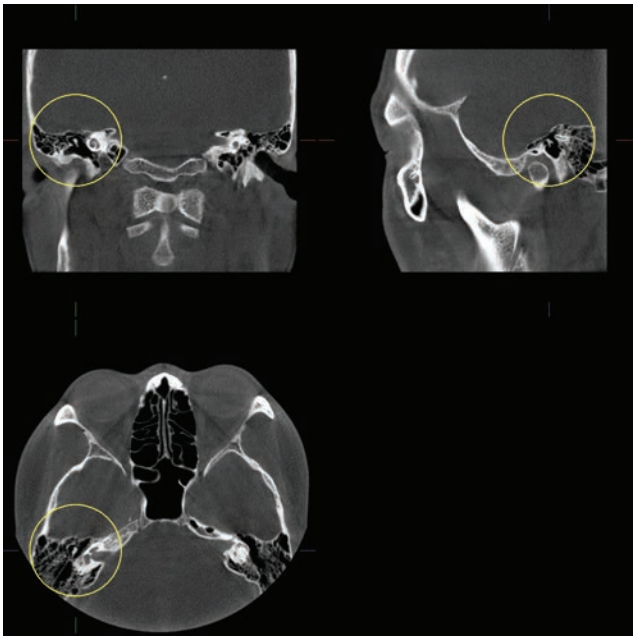
Ø100 × H 100 mm (160 µm)



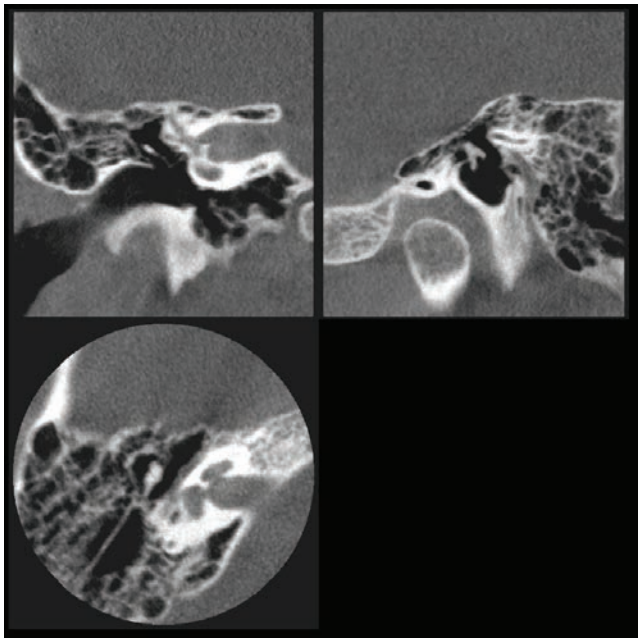
Ø60 × H 60 mm (100 µm)

Zoom reconstruction from original data

The 3D Accuitomo is equipped with a unique zoom reconstruction function allowing you to zoom in and reconstruct a new volume from the original scan, without the need for additional acquisitions. The new volume can be reconstructed with a resolution of up to 80 µm improving diagnostic accuracy with no additional X-ray exposure to the patient.



Ø170 × H 120 mm (250 µm)



Ø40 × H 40 mm (80 µm)

Adaptable Acquisition Modes

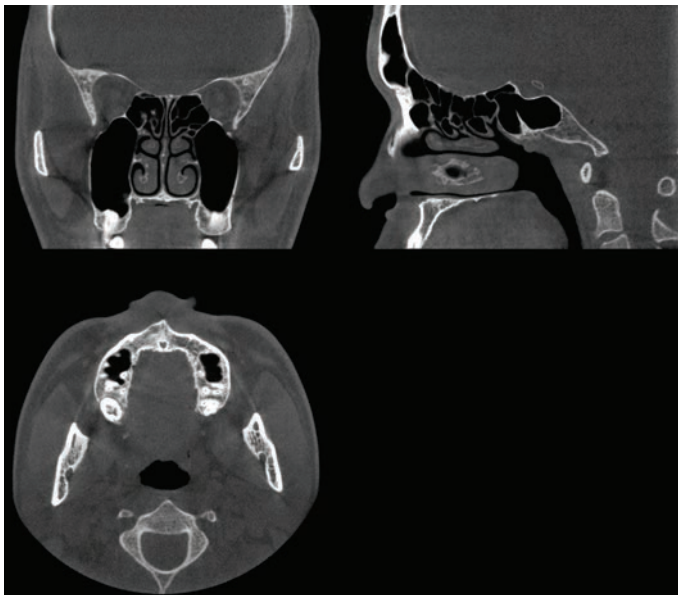
Four exposure modes from high resolution to high speed

High Resolution (Hi-Res) Mode: Pixel size of the flat-panel detector is 1/4 compared to standard mode. This mode has the best spatial resolution.

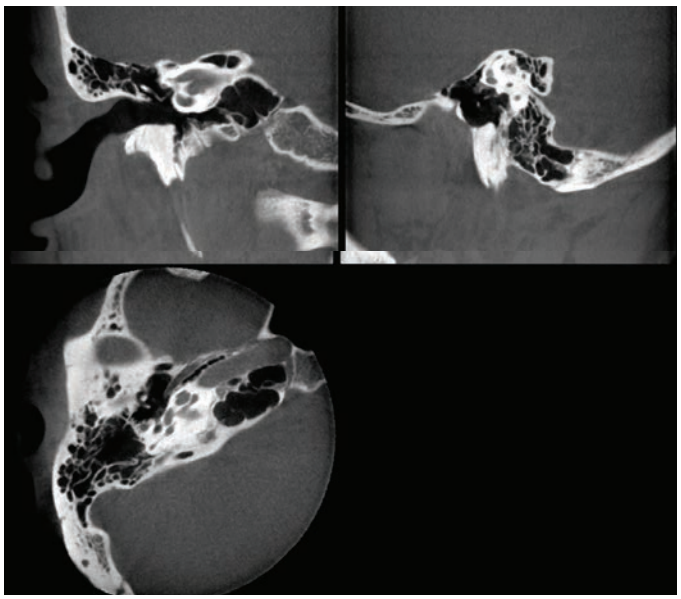
High Fidelity (Hi-Fi) Mode: Higher data density for clearer image than standard mode. This mode is suitable for the zoom reconstruction function.

Standard (Std) Mode: Suitable for all applications; from local to large areas, such as temp jawbone, and teeth.

High Speed (Hi-Speed) Mode: This helps reduce motion artifacts during the scan. Suitable for patients such as children, who have difficulty controlling movements.

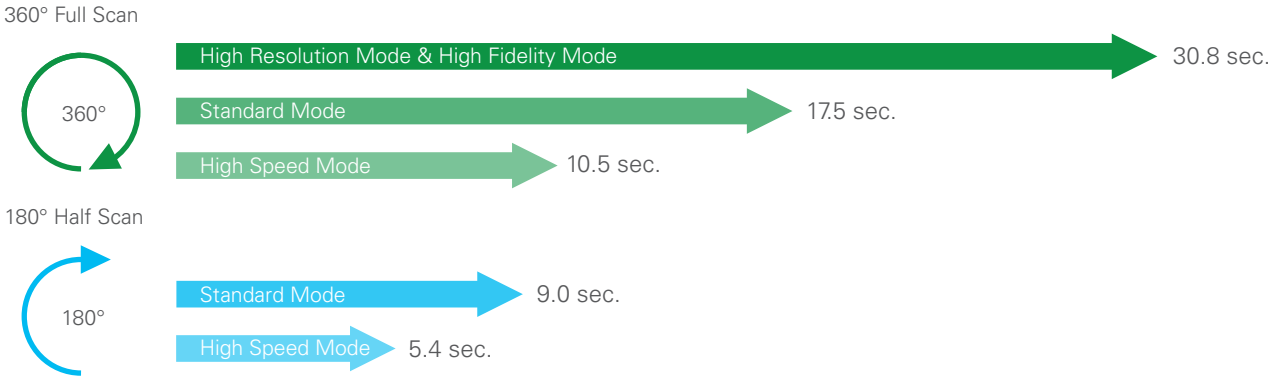


Standard Mode Ø170 mm × H 120 mm



High Fidelity Mode Ø80 mm × H 80 mm

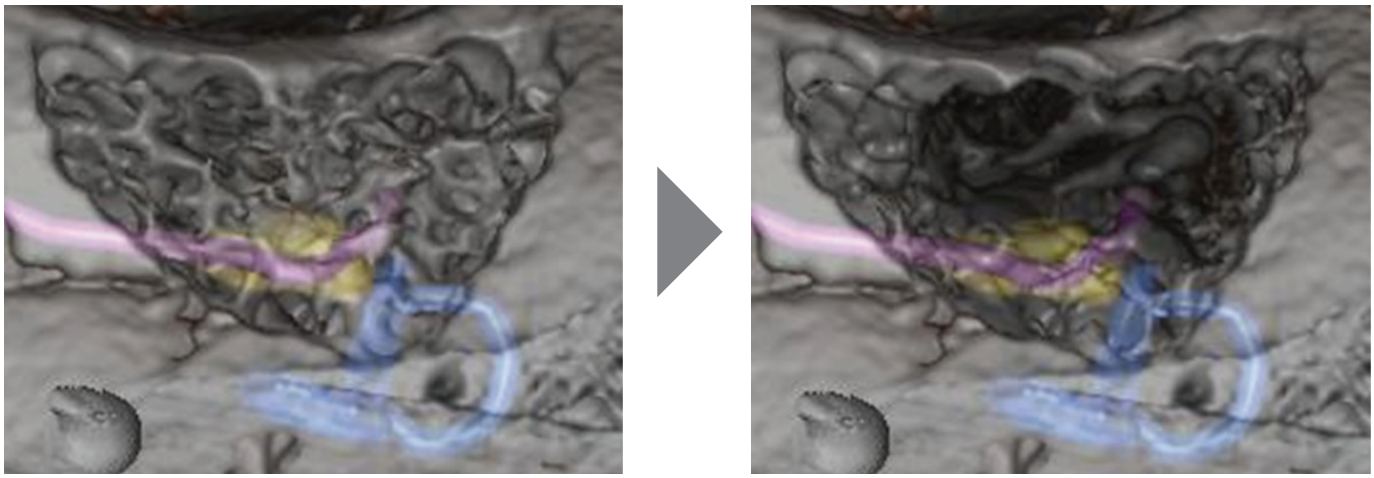
	360° Full Scan	180° Half Scan
High Resolution (Hi-Res) Mode*	30.8 sec.	15.8 sec.
High Fidelity (Hi-Fi) Mode	30.8 sec.	15.8 sec.
Standard (Std) Mode	17.5 sec.	9.0 sec.
High Speed (Hi-Speed) Mode*	10.5 sec.	5.4 sec.



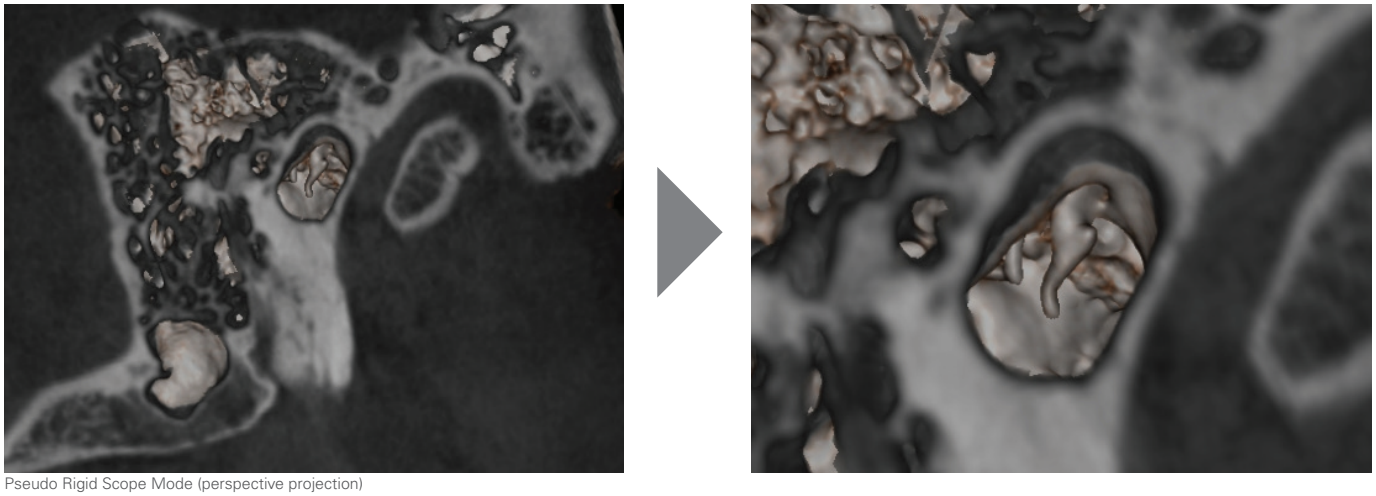
*High resolution mode and high speed mode are only available for Ø40 × H 40 mm and Ø60 × H 60 mm FOVs.

Fulfilling supportive functions for clinical practices

The 3D Accuitomo is equipped with an application that has various functions that allow simulations within volume rendering.

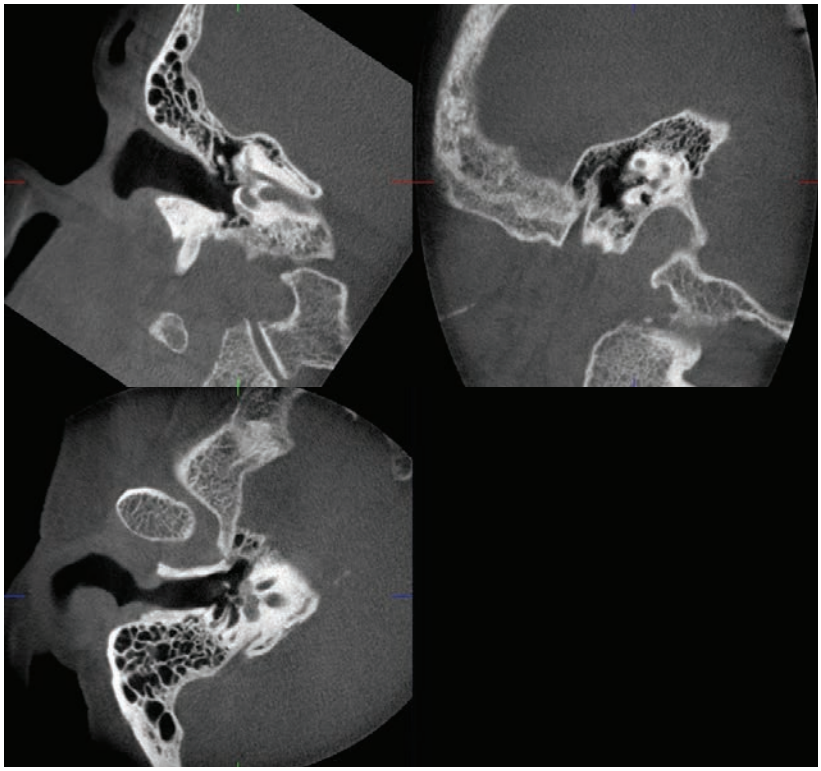


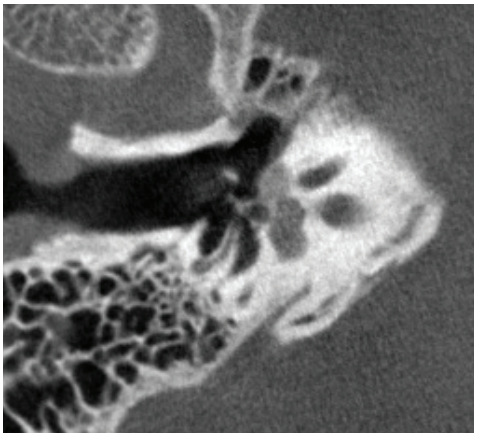
Mastoidectomy Mode (neural tubes drawing and CT volume removing)



Pseudo Rigid Scope Mode (perspective projection)

Case Example 1

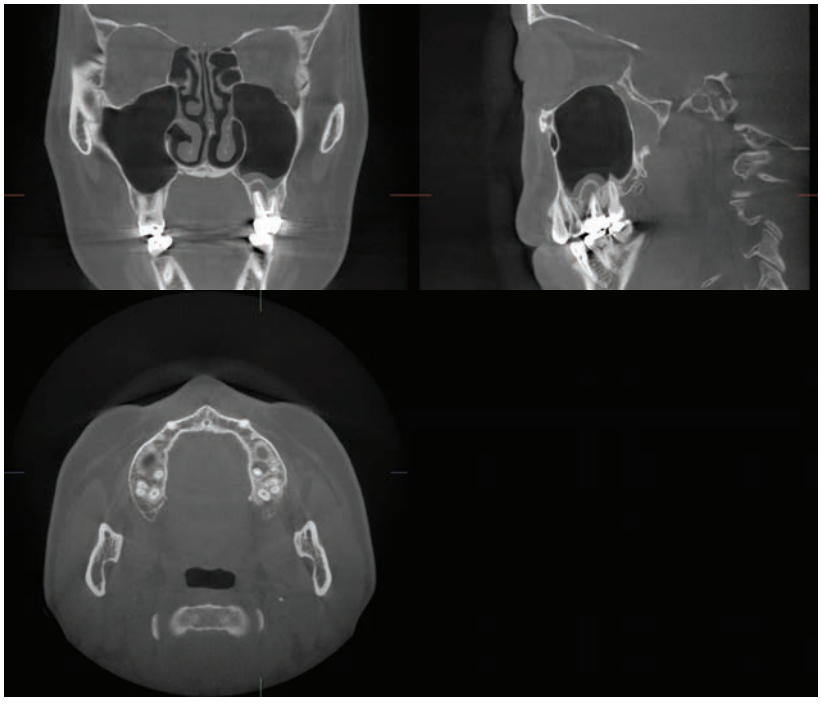




Case: Otosclerosis

The otospongiotic lesion is detected around the anterior oval window (fissula ante fenestram). MPR images created in the planes parallel to the stapes superstructure clearly show the positional relationship between the stapes and the otosclerotic lesion.

Image Courtesy: Kawano Ear Surge Clinic



Case: Odontogenic maxillary sinusitis

Here is a high-resolution CBCT scan of the left first molar of the maxilla which has undergone endodontics (root canal treatment and crown restoration). The floor of the left maxillary antrum shows the early stages of odontogenic maxillary sinusitis due to an apical lesion of the left first molar.

Image Courtesy: Sato Clinic

Case Example 2

Photo 1A:
Clinical aspect at the initial examination

Case: Implantology

Female patient referred for 3-dimensional analysis of esthetic complications after implant treatment in the left maxillary incisor region (Photo 1A).

The clinical status exhibits a mucosal recession, as well as a flattening and discoloration of the facial mucosa at the implant crown. The patient complained about recurrence of the peri-implant infection.

Symbols "*" in the photos 1C and 1D indicate the location of nasopalatine duct.

Image Courtesy: Prof. em. Dr. Daniel Buser and Prof. Dr. Michael Bornstein

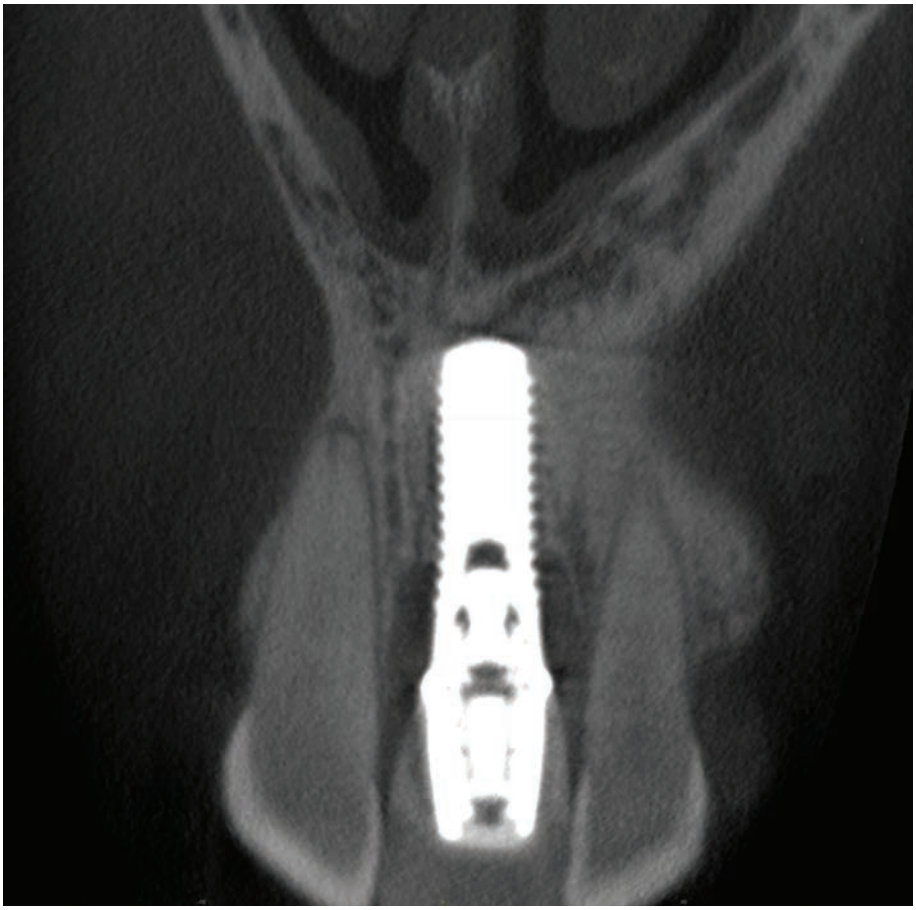


Photo 1B:
Coronal image

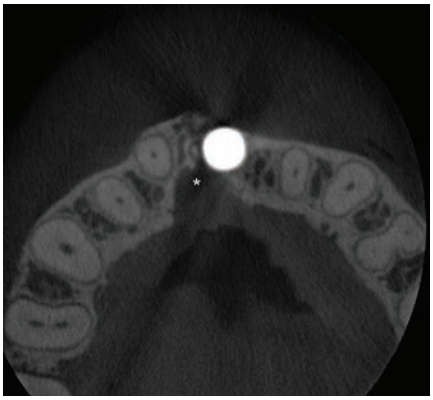


Photo 1C:
Axial image

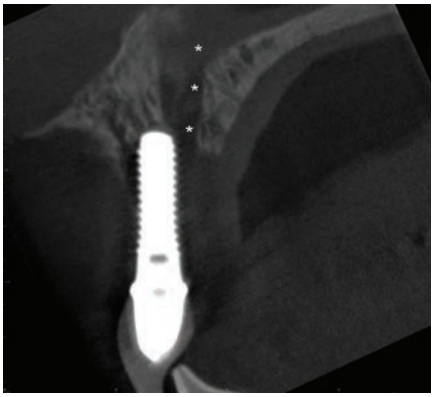


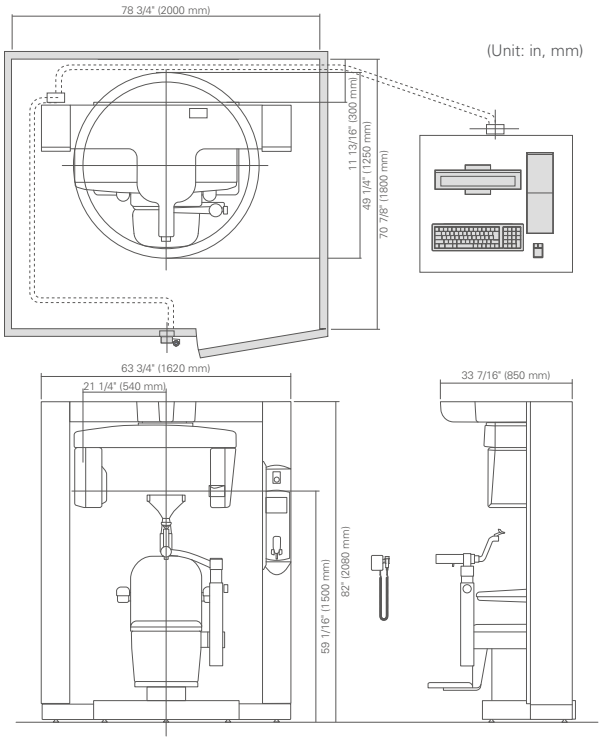
Photo 1D:
Sagittal image

Specifications

	Specifications	
Equipment	Exposure Mode	Standard (Std) Mode
		High Fidelity (Hi-Fi) Mode
		High Resolution (Hi-Res) Mode
		High Speed (Hi-Speed) Mode
	Fields of View (Voxel Size)	Ø40 × H 40 mm (80 µm)
		Ø60 × H 60 mm (125 µm)
		Ø80 × H 80 mm (125 µm)
		Ø100 × H 50 mm (160 µm)
		Ø100 × H 100 mm (160 µm)
		Ø140 × H 50 mm (200 µm)
		Ø140 × H 100 mm (200 µm)
		Ø170 × H 50 mm (250 µm)
		Ø170 × H 120 mm (250 µm)

	Specifications	
Equipment	Zoom Reconstruction	
	Two Direction Scout	
	Scan Mode	360°
		180°
Software	3D Viewer	Volume rendering
		CrvdMPR
		Image Carving
		Neural Tube Drawing
	Data Export	One Data Viewer
		One Volume Viewer
		DICOM File Export
	DICOM Storage	
	Print Center	

Trade Name	3D Accuitomo XYZ Slice View Tomograph
Model	MCT-1
Type	EX1/2 F17
Power Supply	AC 100/110/120 V AC 220/230/240 VAC
Power Consumption	Max. 2.0 kVA



Dimensions	
Main Unit	W 63-3/4" × D 49-1/4" × H 82" (1,620 mm × 1,250 mm × 2,080 mm)
Control Box	W 4" × D 1-5/8" × H 4-1/2" (100 mm × 40 mm × 115 mm)
Weight	Approx. 400 kg (Approx. 882 lbs)

X-ray Head	
Tube Voltage	60 – 90 kV
Tube Current	1 – 10 mA (Max. 8 mA: Hi-Fi, Hi-Res Mode)
Focal Spot Size	0.5
Exposure Time	Std Mode: 17.5/9.0 sec. Hi-Fi Mode: 30.8/15.8 sec. Hi-Res Mode: 30.8/15.8 sec. Hi-Speed Mode: 10.5/5.4 sec.
Field of View	Ø40 × H 40 mm, Ø60 × H 60 mm, Ø80 × H 80 mm, Ø100 × H 50 mm, Ø100 × H 100 mm, Ø140 × H 50 mm, Ø140 × H 100 mm, Ø170 × H 50 mm, Ø170 × H 120 mm
Voxel Size	80 µm/125 µm/160 µm/250 µm

* X-ray protection should be provided for the patient when X-rays are emitted.

Diagnostic and Imaging Equipment

Treatment Units

Handpieces and Instruments

Endodontic System

Laser Equipment

Laboratory Devices

Educational and Training Systems

Auxiliaries

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