SCANORA® 3D

Easy
Effective
Versatile

SOREDEX

Cone Beam 3D and
digital panoramic imaging
combined in one system.

More value for your money

SOREDEX has been manufacturing high quality X-ray systems for over 35 years. With SOREDEX your investment is protected, because our products are renowned for their excellent quality, reliability and extremely long service life.

With SCANORA® 3D, the advanced dental imaging required for accurate diagnostics, implant treatment planning and oral surgery can now be done in your practice. Now, more demanding procedures can be performed efficiently and safely. Diagnostic information can be obtained without delay and with fewer referrals to outside facilities, such as medical CT examinations. The whole treatment planning process, from the first contact through radiological examinations, case planning, treatment acceptance, and follow-up, can be handled in one practice – yours.

Summary of benefits

- Three, plus one optional, fields-of-view from 60x60 mm to 130x145 mm
- The FOV can be freely located to different areas of the dento-maxillofacial area.
- Fully motorized chair for seated and stable patient positioning
- Low dose
- 12" HD clear touch control panel for ensuring easy workflow
- Compatible with leading drill guide and surgical navigation systems
- Open software architecture for 3rd party applications
- DICOM® / PACS compatibility
- Optional CCD - RealPAN™ sensor for high quality dental panoramic imaging, with AutoSwitch™ 2D/3D mode change
- Small footprint

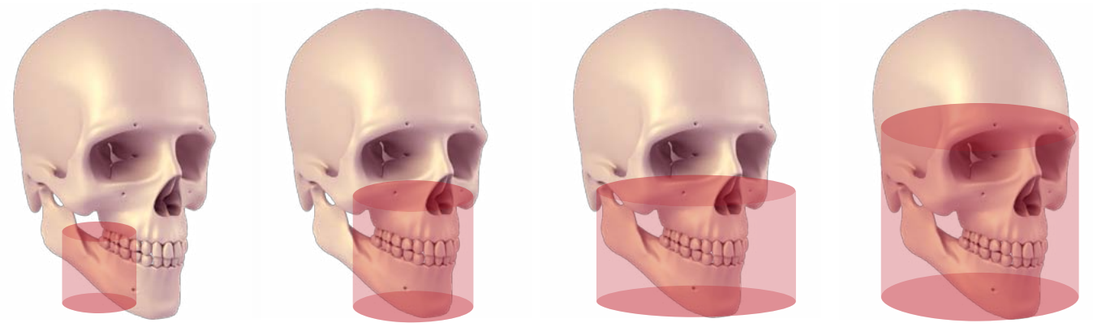
Superior versatility

3D imaging

The SCANORA® 3D offers superior versatility by combining cone beam 3D imaging, with up to four easily selectable fields-of-view (FOV), plus optional RealPAN™ panoramic imaging. At the touch of a key, the unit automatically switches between 3D and panoramic imaging modes, making it quick and efficient to use.

The proper image volume can be selected for each specific diagnostic task. The field-of-view can be positioned anywhere within the maxillofacial area.

SCANORA® 3D FOVs (H×D in millimeters) for typical examinations



Small FOV
(60×60) is ideal for single implant operations, localized dental examinations and temporomandibular joints.

Medium FOV
(75×100) is suitable when the entire dental complex, including the wisdom teeth, need to be examined. This field-of-view can also provide information for drill guide planning.

Large FOV
(75×145) is ideal when the complete dentition, both TM joints and upper cervical spine must be examined.

*Extra large **XL FOV** **(Optional)***
(130×145) can show the whole maxillofacial area with airways.

Selectable 3D resolution

SCANORA® 3D combines low dose, fast imaging and high accuracy. Standard resolution offers fast imaging with low dose, suitable for most diagnostic tasks. High resolution improves accuracy with slightly higher imaging time and dose. The smallest attainable voxel (volume element) size is 0.133 mm.

Excellent diagnostic performance

SCANORA® 3D system offers a modern way of seeing dentomaxillofacial anatomy and solving diagnostic tasks. The high-definition panoramic image shows the regions that need further investigation. The optimum 3D technique for a specific task can be easily selected, treatment planned and finally follow-up studies done, all with one efficient unit. The system contains user-selectable features that contribute to excellent diagnostic performance.

Uncompromised quality

SCANORA® 3D system has been designed from the ground up using the very latest 3D imaging technology. The overall quality comes as a result of successful combination of the x-ray unit itself, ergonomic and rigid patient support devices, and the newest image handling procedures to enhance diagnostic information.

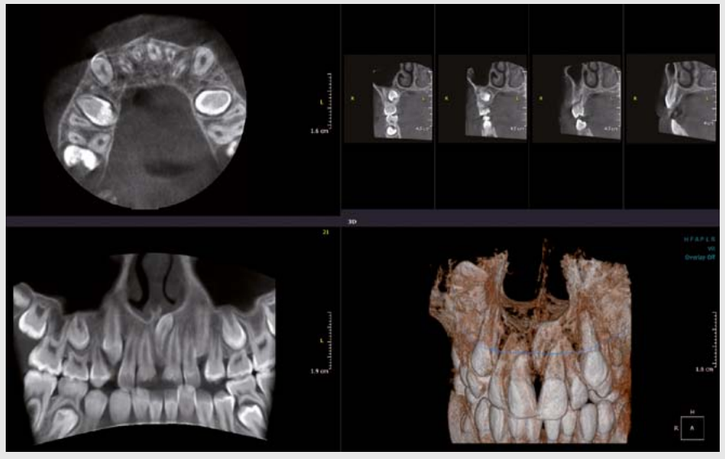
High technology flat panel detector

The flat-panel detector is a masterpiece of modern CMOS technology. Compared to image intensifiers, flat-panel detectors offer superior image quality due to their large dynamic range, better contrast and lack of image distortion. Additionally ,they are insensitive to electromagnetic interference, are compact in size and have a very long service life.

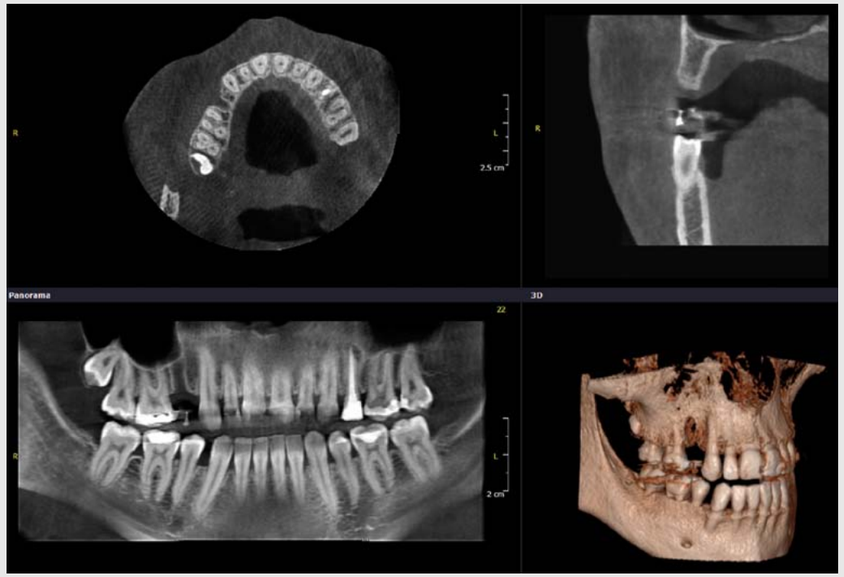
Full diagnostic information

The FOV can be easily positioned anywhere in the maxillofacial area, thanks to the motorized patient seat. After scanning and image reconstruction, a full range of diagnostic options can be utilized.
The diagnostic information can be thoroughly examined with the many powerful software tools and features.

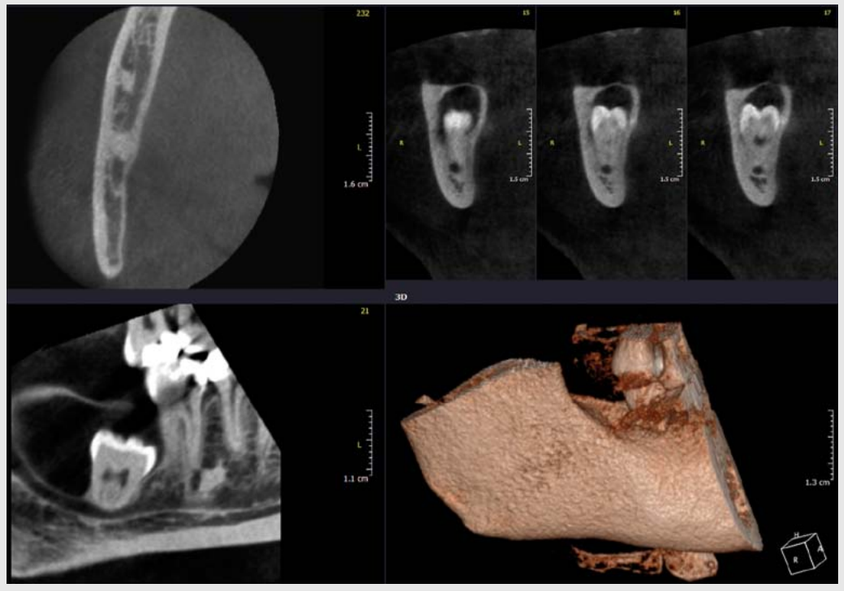
The small FOV is ideal for localized problems.



The small FOV can also be used in child imaging.



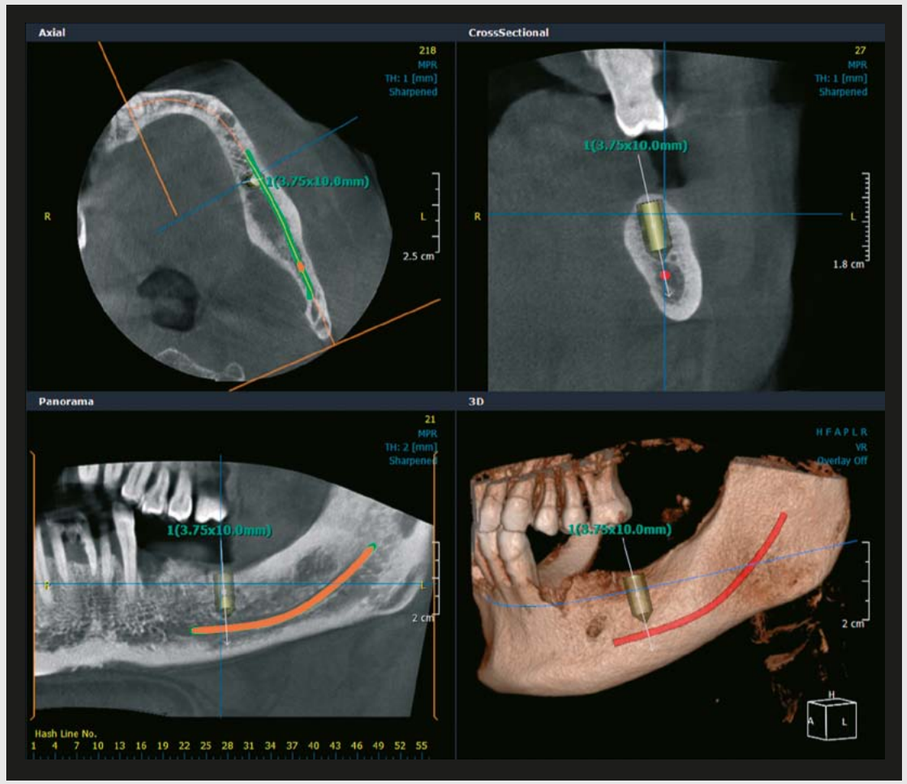
The medium FOV can display all the teeth in one image.



An example of the small FOV. A cyst in mandible.

Ideal for implant dentistry

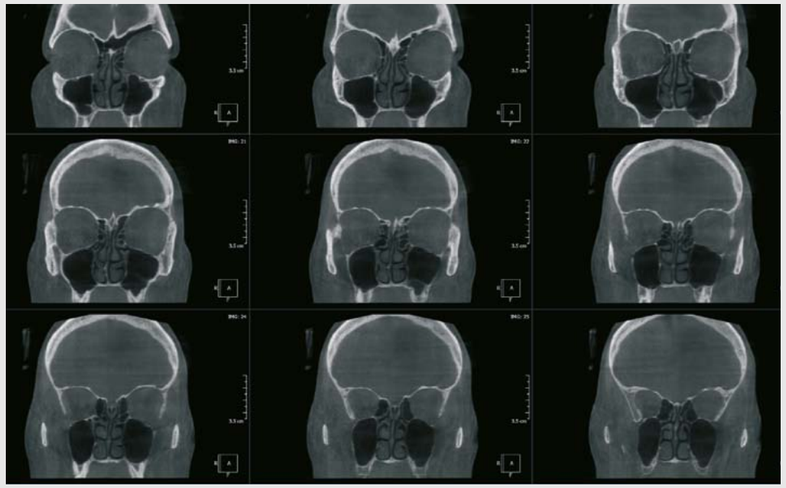
For proper implant site selection, accurate information is needed about the available bone, its quality, and the exact location of critical areas. The location of the mandibular nerve canal and maxillary sinus can be obtained accurately and easily. With the help of a multiplanar slice display, 3D rendering, measurement tools, and comprehensive implant symbol library, implant planning and surgery can be carried out efficiently and safely.



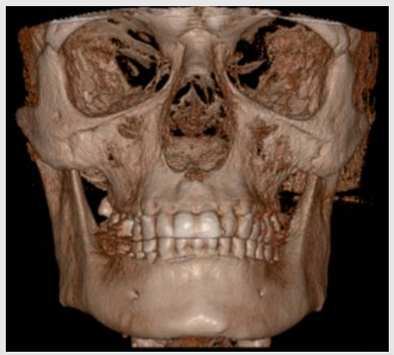
An example of the planning tools.

For third party drill guide systems the volume data can be exported in DICOM® format. Through DICOM® support, SCANORA® 3D system integrates with other imaging software and modalities and is compatible with most specialty third-party software, drill and surgical guide applications.

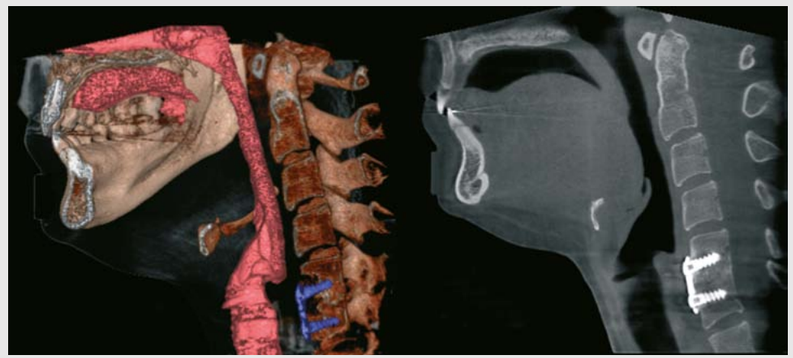
Expand your view in the ENT area



With the software you can view coronal, axial and sagittal projections similarly as with conventional medical CT, but with much higher resolution.



The optional XL FOV is suitable, for instance, for sinus examinations.



Powerful 3D visualization features in the software allow you to see air passages and bony structures side by side with CT images.

RealPAN™ panoramic imaging by using a dedicated CCD sensor (optional)

In most examinations a panoramic image is the first step and provides an overview of the whole dentition. With the panoramic option, the SCANORA® 3D provides the speed and efficiency of traditional panoramic imaging.

Panoramic imaging with AutoSwitch™

SCANORA® 3D uses a dedicated CCD sensor for high-quality panoramic imaging.
The unique, patented AutoSwitch™ feature changes automatically between panoramic and 3D modes.

Smooth workflow

SCANORA® 3D system has been designed to optimize your workflow. The AutoSwitch™ feature, easy patient positioning, short scan and image reconstruction times ensure speed and efficiency.

Superior quality, traditional full field panoramic images with a dedicated panoramic sensor.

Lower dose and better resolution than with synthesized pan from 3D image.

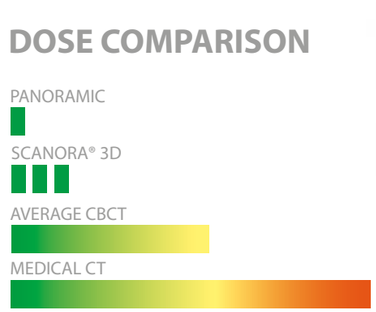
No risk of dropping or damaging the integrated sensor.

Low dose 3D imaging

X-ray imaging is optimization between image quality and x-ray dose. With SCANORA®3D this has been successfully resolved by combining high image quality with low dose. The key factors in achieving this are sophisticated x-ray generation, selectable imaging modes, a state-of-the-art flat-panel detector and innovative image reconstruction technology.

The x-ray dose in all the fields-of-view of SCANORA® 3D is low. The minimum effective dose can be compared to one digital panoramic exposure and, at maximum, to a few panoramic exposures for a larger field-of-view and higher resolution.

SCANORA® 3D gives you the ability to carefully minimize the dose according to the diagnostic task, whether it is a question of detailed primary diagnostics or a follow-up study. It is a safe and efficient diagnostic tool for your clinic.



For more exact information, please refer for instance to research of the SEDENTEXCT: Pauwels et al. Effective dose range for dental cone beam computed tomography scanners. European Journal of Radiology. doi: 10.1016/j.ejrad.2010.11.028

Performance ALARA*

Building on the ALARA* principle, the diagnostic performance and the low dose are achieved by pairing pulsed radiation and half beam technology.

ALARA* = As Low As Reasonably Achievable

Freedom of movement

Four adjustable Fields of View ranging from 60 x 60 mm to 130 x 145 mm provide the view for each task in the entire Head & Neck area.

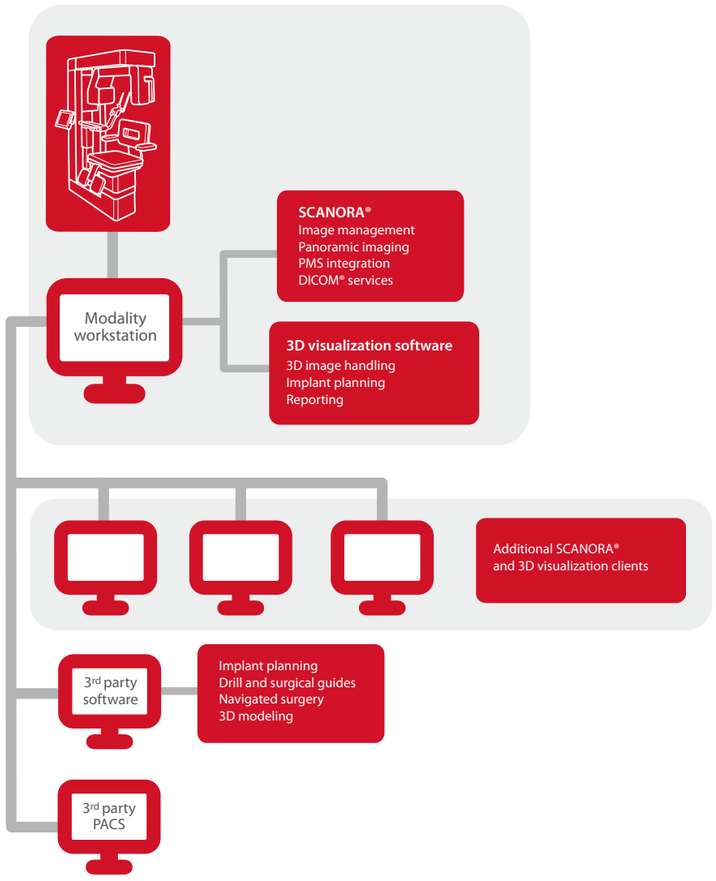
Open software architecture

SCANORA® 3D produces image data in DICOM® format. With its open architecture it allows versatile and optimized software solutions to be tailored for your practice. The local area network (LAN) with several viewing stations is the solution for most practice applications allowing the system to be linked with the network and system server.

SCANORA® software is the main platform, including the local patient image database and panoramic image handling.
3D visualization software provides 3D image handling, diagnostic and implant planning.

Freely distribute clinical cases on CD/DVD to referring clinicians. The referring clinician can utilize the free viewer without investing in special software or import the images in DICOM® format into their own 3D software.

** Digital Imaging and Communication in Medicine*



Technical data

3D Imaging fields-of-view and specifications

FOV [Height × diameter]	Resolution	Voxel size [mm]	Scan/ Exposure time [s]	Total image processing time approx. [minutes]
3D Small 60×60 mm	Standard	0.20	13/3	1
	High	0.133	20/4.5	2
3D Medium 75×100 mm	Standard	0.30	11/2.5	1
	High	0.20	16/3.75	2
3D Large 75×145 mm	Standard	0.35	10/2.25	1
	High	0.25	13/3	2
3D XL 130×145 mm	Standard	0.35	20/4.5	2
	High	0.25	26/6	4

3D image receptor

Receptor type	CMOS Flat Panel
Receptor active area	124 mm×124 mm
Pixel size	200 µm

Panoramic image receptor (Optional)

Technology	CCD
Detector size (H×W)	146 mm×6 mm
Detector pixel size	48 µm

Panoramic imaging programs (Optional)

Adult panoramic program
Pediatric panoramic program
TMJ programs

X-ray generator

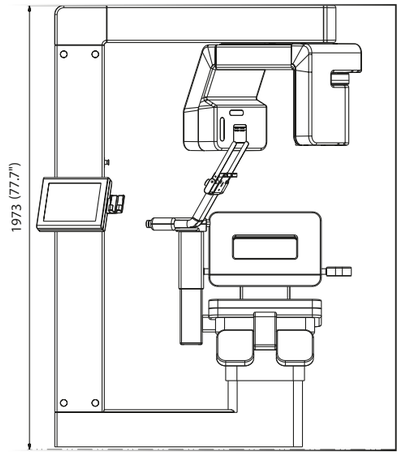
Tube	Fixed anode tube
Focal spot	0.5 mm IEC 60336
Target angle	5 degrees
kV	60-90
mA	4.0-12.5

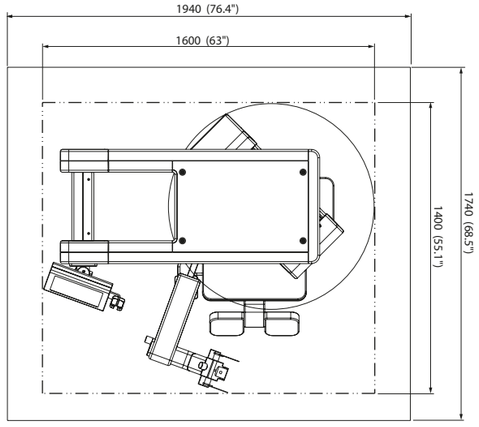
General

Weight	310 kg (690 lbs)
Dimensions (HxWxD)	1973 mm×1600 mm ×1400 mm (77.7″×63″×55.1″)

Power requirements

Line voltage	230-240 VAC (±10 %), 50/60 Hz





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Pride. Passion. Performance.

Since 1977 SOREDEX has been a leader in providing innovative imaging solutions for demanding professionals. Through continuous evolution and refinement we have set the highest industry standards for Quality, Reliability and Efficiency.

We are committed to following this path today and in the future.

CE-marked, NB (CE) number 0537. Electrical safety meets the IEC 60601-1 standard. Manufacturing complies with ISO 13485:2003, ISO 9001:2008, and ISO 14001:2004.