THE DENTAL
SOLUTIONS
COMPANY™

Dentsply Sirona

See more with certainty

Dentsply Sirona Imaging for Endodontics

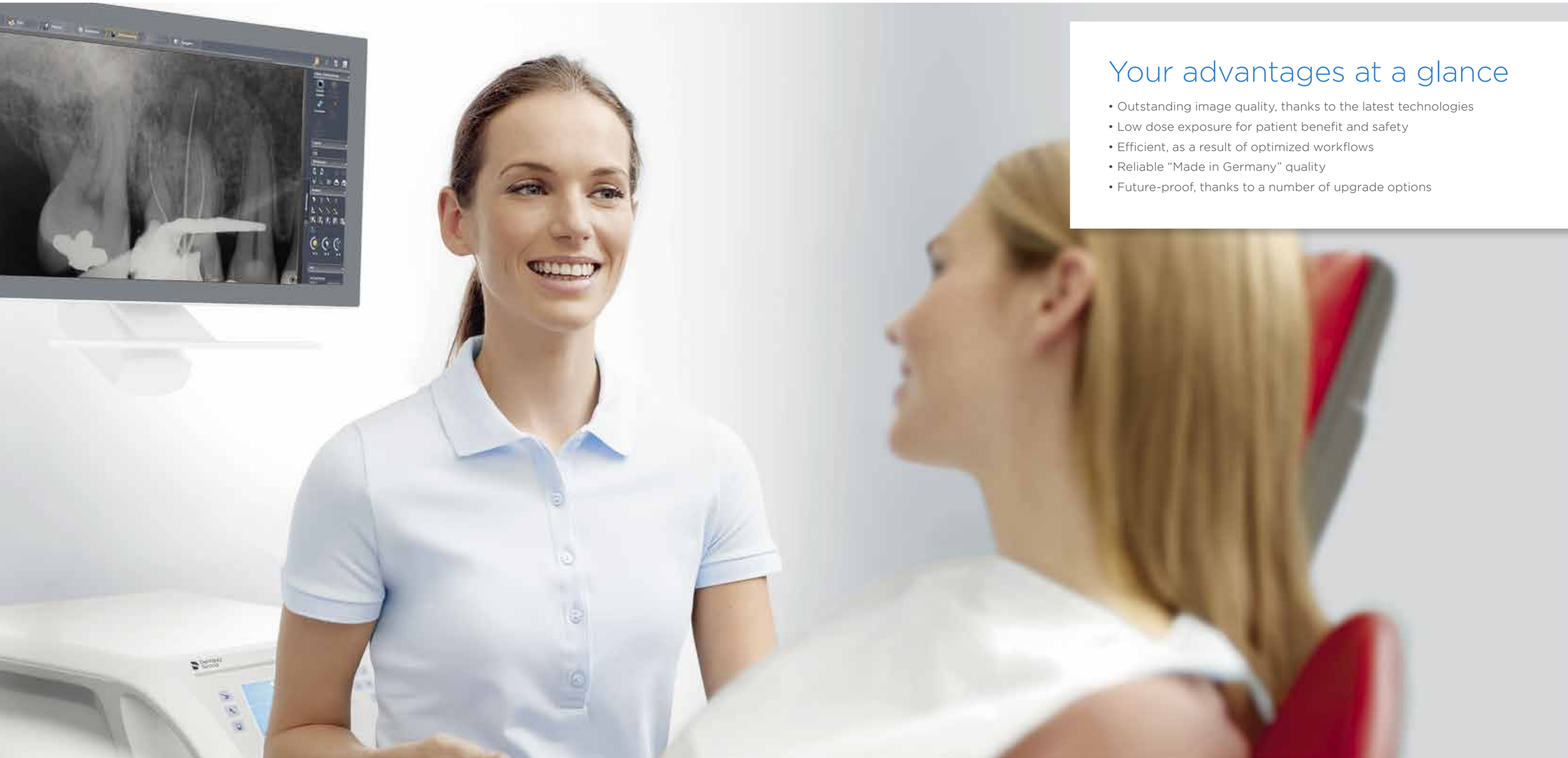
dentsplysirona.com

Changing the face of Endodontics

Digital integration, radiation exposure, and increasingly enlightened patients are all topics that influence how you practice each and every day. With imaging systems from Dentsply Sirona you can rely on experience that provides you with peace of mind and provides your patients with safe, high-quality care. Dentsply Sirona has been a pioneer in the field of X-rays for more than 120 years, establishing new methods and innovations in the field of imaging - ones that will allow you to face your daily challenges efficiently and in an improved way. True to our motto: The more you see. The more possibilities there are.

The right system for today‘s endodontic practice. More than X-rays

Pure imaging is no longer enough. Of course, image quality is key when it comes to modern X-ray systems, because the quality of the clinical X-ray data is the basis for the following diagnosis and treatment. Faster, better diagnostics, safety in treatment, better communication with the patient, and efficient, uncomplicated workflows, are all things we have taken into account with our imaging units and benefits that you expect. We pride ourselves on not only providing high-caliber images, but also safe and comfortable patient experiences, basing all of our units on the ALARA principle. We make sure that you get the best possible images at the lowest necessary dose.



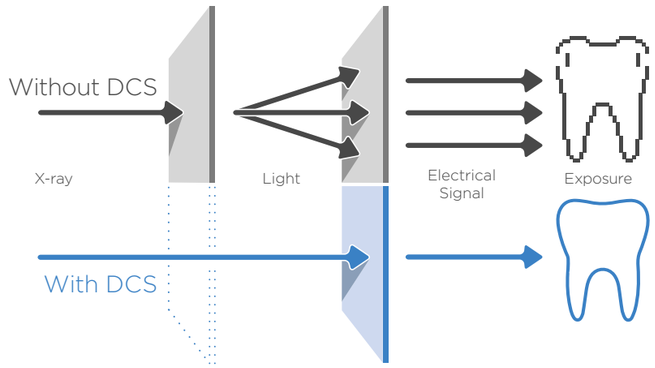
Your advantages at a glance

- Outstanding image quality, thanks to the latest technologies
- Low dose exposure for patient benefit and safety
- Efficient, as a result of optimized workflows
- Reliable “Made in Germany” quality
- Future-proof, thanks to a number of upgrade options

See more:

Better images, better diagnostic accuracy

Dentsply Sirona imaging devices score points in practices around the world with their innovative technological features and precise images. All programs and recording parameters are adapted to the specific diagnostic tasks and offer you more possibilities for diagnosing.



DCS Technology

Sharpness down to the last detail

The Direct Conversion Sensor (DCS)* has redefined the standard of panoramic imaging. X-rays are directly converted into electrical signals – in contrast to conventional sensors, there are no signal losses due to light conversion. This means an improved yield of image information for you. The result is images with uniquely high sharpness and detail capture – even with an extremely low dose..

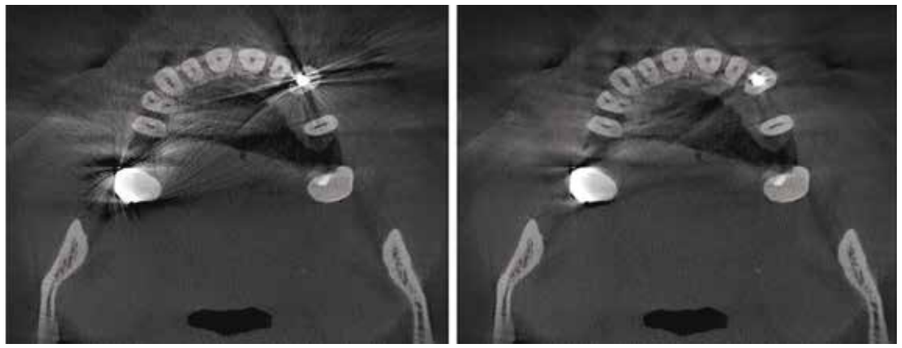
Traditional digital panorama image

Orthophos SL with DCS sensor technology

* Only in Orthophos SL.

See behind objects with MARS

Metal artifacts can be a challenge in 3D X-ray imaging. X-ray density creating shadows in three-dimensional reconstruction of objects and stripe effects. The software MARS (Metal Artifact Reduction Software) reduces Metal artifacts in 3D images using reliable new algorithms. Thus, image quality is significantly improved and diagnosis is made easier.



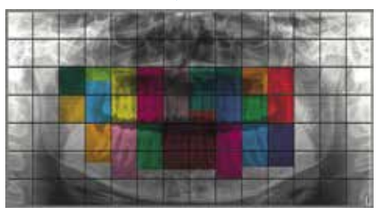
Autofocus - High-quality imaging, fully automatic

See more: To obtain a panoramic X-ray image with a high degree of sharpness the right focus is essential. The jaw must be in the sharp the recording layer of the device. To do this, Orthophos creates several thousand individual images in a single cycle and automatically recognizes the areas in which the jaw is optimally positioned. These are displayed in an overall picture with maximum sharpness and without any manual intermediate steps.

Autofocus feature in Orthophos SL/S: for sharp images

When autofocusing in the Orthopos SL/S, no manual steps are required. Such as, the selection of images or the positioning of a canine light line. The device automatically focuses all areas of the jaw in an optimal way.

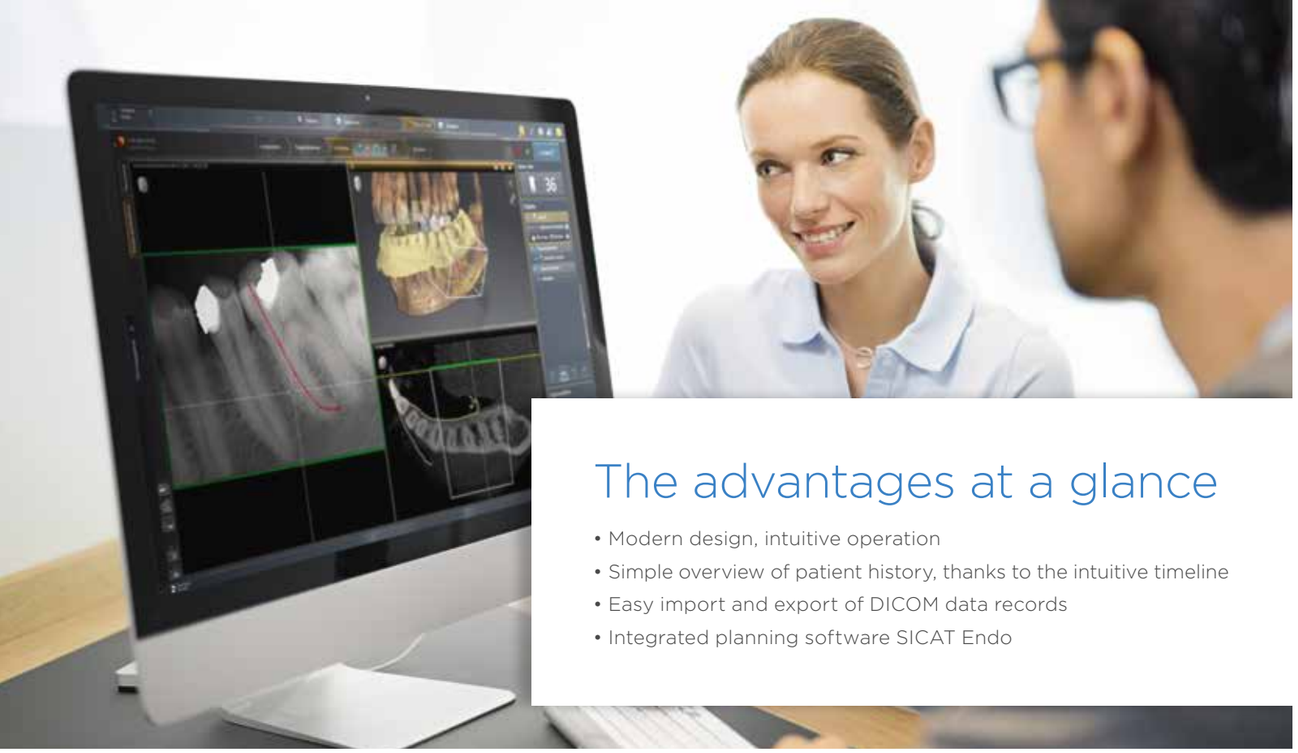
Orthophos SL/S devices focus all areas of the jaw automatically. Fully automatic and without manual intermediate steps. The result: shots with maximum sharpness and clear details.



Based on the results of the autofocus, a fully automatic calculated sharp image

The result: images with maximum sharpness

* Only in Orthophos SL.

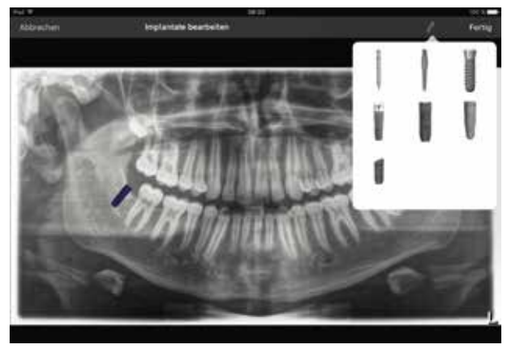


The advantages at a glance

- Modern design, intuitive operation
- Simple overview of patient history, thanks to the intuitive timeline
- Easy import and export of DICOM data records
- Integrated planning software SICAT Endo

Sidexis iX

3D Imaging to go



For the very first time, you have the ablility to view your 3D X-ray data on an iPad. It has never been so easy to enjoy the advantages of 3D and the flexibility that Sidexis iX provides you.

Be it for patient communication or simply for a meeting in the office, Sidexis iX offers you the opportunity to connect the corresponding iX Server to your Sidexis patient database and to target it according to individual patients. The Sidexis software that is installed on the practice computer is used for this purpose. You will connect the Sidexis iX Server to your Sidexis 4 patient database and it will provide the app with the available patient data. The desired data records can then be conveniently transferred to the local app database on the iPad and are then available at need without a direct network connection.

Sidexis 4

Optimal Workflow with a Clear Structure

Simple overview of patient history with the Timeline

An X-ray unit can only show its full potential when it is able to seamlessly integrate into your practice environment and your daily workflows. Our imaging software, Sidexis 4, is the center of the Dentsply Sirona digital workflow and the interface to practice administration and planning software.

To optimally support the processes in practice, Sidexis 4 combines a wide variety of sophisticated tools with an intuitive, modern design. Not only do you have all of the necessary tools and images at your disposal, but through the use of the multi-award-winning operating concept, they are always just a few simple clicks away.

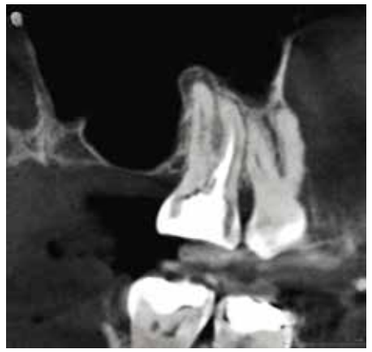
The Sidexis 4 digital lightbox works flexibly with the various types of images and allows both 2D and 3D images to be examined and displayed seamlessly and simultaneously within the same workspace. The highly intuitive Compare Function allows you to conveniently analyze multiple images simultaneously, creating true ease while diagnosing your patient and creating a treatment plan. Sidexis 4 creates true efficiency in practical processes.

Endodontics in the 3rd dimension

See more. More possibilities

Endodontics is one of the most complex and challenging disciplines in the field of dentistry and can often hold many suprises. A current survey of Dentists, with the title “Working in the dark”*, recently brought to light some of these endodontic challenges. The participating dentists associated root canal treatments with stress, frustration and lack of control. This certainly has to do with the complexity of root canal treatments in general, but it is also highly influenced by the limitations of two-dimensional imaging, which is still the main standard for pre-endodontic diagnostics. Intraoral X-rays offer only a two-dimensional representation of the actual clinical situation where important information often remains hidden and can be overlooked. In these cases, three-dimensional X-ray images offer the following advantages, adding invaluable benefits to your treatments and your practice. Recent studies have shown that the additional information provided by three-dimensional X-ray technology allows for decisive treatment decisions.**

The 2D image clearly shows that the tooth has already been fully treated endodontically.



The 3D image shows that at least one root canal has not been treated.

It only becomes clear in the axial view that there is an additional canal that remains untreated. The CBCT provides this additional clinical information that would not have been seen with a traditional 2D image.

* Dahlström L, Lindwall, Rystedt H, Reit C. ‚Working in the dark': Swedish general dental practitioners on the complexity of root canal treatment. Int Endod J. 2017;50:636-645.

** Mota de Almeida FJ, Knutsson K, Flygare L. The effect of cone beam CT (CBCT) on therapeutic decision-making in endodontics. Dentomaxillofac Radiol 2014;43:20130137.
Rodríguez G, Abella F, Durán-Sindreu F, Patel S, Roig M. Influence of Cone-beam Computed Tomography in Clinical Decision Making among Specialists. J Endod 2017;43:194-199.

3D Software Applications

Awaken the full potential of the equipment in your practice

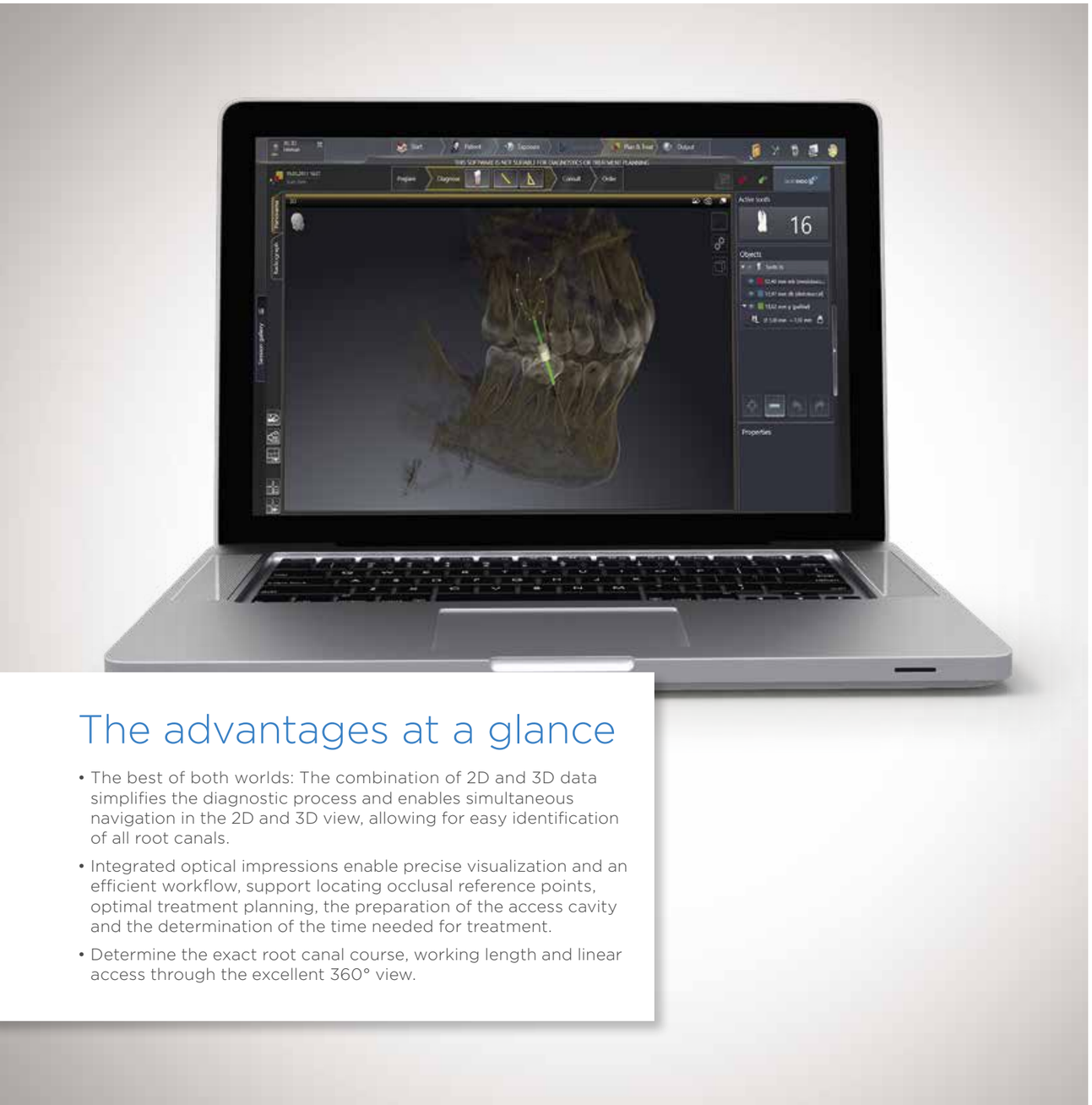
Intelligent imaging software provides you far more than just efficient and intuitive access of your X-rays. It supports your treatment and makes it possible for you and your practice to offer a broader, more secure range of services. Beyond that it also increases patient satisfaction through the use of modern communication options via the practice monitors and a deeper integration into your treatment proposal. Therefore, we at Dentsply Sirona make sure that our high-quality practice equipment is always accompanied by an intelligent software solution. With our application software for endodontics, we support you in the planning of your endodontic treatment from the visualization of the root canals, to the production of templates, all the way to accessing the cavity.

Orthophos®, Heliodent Plus®, Xios XG®

SICAT Endo

More than 3D

SICAT Endo is the first and only 3D solution for the diagnosis and planning of endodontic treatments. In addition to a more detailed implementation of the guided workflow, SICAT Endo simplifies the entire endodontic treatment process and thus, offers security and confidence in your outcome.



The advantages at a glance

- The best of both worlds: The combination of 2D and 3D data simplifies the diagnostic process and enables simultaneous navigation in the 2D and 3D view, allowing for easy identification of all root canals.
- Integrated optical impressions enable precise visualization and an efficient workflow, support locating occlusal reference points, optimal treatment planning, the preparation of the access cavity and the determination of the time needed for treatment.
- Determine the exact root canal course, working length and linear access through the excellent 360° view.

SICAT ACCESSGUIDE

Efficient, safe and highly accurate

The surgical guides allow you minimally invasive and direct access to the entrance of the root canal, even in heavily calcified canals. The guided linear access can therefore significantly reduce the risk of perforation of the surrounding area. SICAT ACCESSGUIDE supports you in the endodontic treatment to provide an even more efficient, safe and relaxed process.

1 X-ray scan

Using Xios XG Supreme intraoral sensors, in combination with the 3D data from your Dentsply Sirona Imaging System, you can start immediately with diagnostics and treatment planning in SICAT Endo thanks to the full integration with Sidexis 4.

2 Identify and diagnose root canals

Identify and diagnose all root canals easily and reliably. Use the cutting-edge visualization options for focused endodontic diagnostics and accurately determine your working length.

3 Patient Consultation

The ability to create a strategic treatment plan will provide you support during your patient consultations, resulting in improved overall patient communication and patient case acceptance.

4 SICAT ACCESSGUIDE for orthograde endodontic treatment

SICAT ACCESSGUIDE is the first and only surgical guide designed specifically for orthograde or endodontic treatment for better predicatability of treatment. For further information on the SICAT ACCESSGUIDE, please follow this link to the SICAT website: www.sicat.com.

Orthophos SL 3D

For an easy-to-use, optimal workflow, Orthophos SL combines revolutionary image quality with unique, patented positioning aids

The Orthophos SL scores with functionality, quality and design. With the DCS sensor for high-quality imaging in the 2D range, you benefit from high-resolution images with detailed sharpness.

Thanks to Sharp layer technology, you'll consistently capture the sharp plane and can subsequently focus lingually / buccally. In 3D there are a variety of volume sizes (11 cm x 10 cm to 5 cm x 5.5 cm) for optimal adaption to the given indication. With the focused 3D volume of 5 cm x 5.5 cm, Orthophos SL has a Field of View that is ideal for endodontics. In combination with the High Definition (HD) mode, you get X-rays with dynamic sharpness and fine details.

The Orthophos SL also offers the 3D Low Dose mode, with which you can capture 3D images in the dose range of a 2D X-ray.

Focused endo volume in perfect sharpness

DCS and Sharp Layer Technology for sharp and highly detailed images

Simple operation and accurate positioning with the Easypad and occlusal bite block

Orthophos SL

DESIGN AWARD 2015

reddot award 2016 winner

Orthophos S 3D

The high-quality 2D/3D - X-ray device with comprehensive performance spectrum for every practice

Whether as a pure 2D device or an inclusive 3D module - the Orthophos S is a reliable partner and optimized for your daily practice tasks. The CsI-Plus-Sensor with autofocus function provides sharp images, even in anatomically difficult cases. The patented occlusal bite block automatically positions the patient in the ideal position for accurate and consistent imaging. For use in orthodontics, the Orthophos S has an optional cephalometric arm that can be added. And because future-proofing your investment is import to Dentsply Sirona, the Ceph-Arm, as well as 3D, can be retrofitted at any time.

Optimized for the daily tasks in your practice

Services and functions

1

2D-CsI-Plus sensor with autofocus function

For sharp recordings, even in anatomically difficult cases

2

Coordinated volume sizes

From ø 5 cm x 5,5 cm up to ø 11 cm x 10 cm

3

Low Dose and HD function

3D images in the dose range of 2D X-rays and HD recordings with up to 80 µm Resolution

4

Patented occlusal bite block for automatic positioning

For maximum consistency and reproducibility

5

Cephalometric arm

Left or right option, for ceph images

6

Safe and proven patient positioning

With the motor-powered temple and forehead supports, automatic temple width measurement, light localizers and sturdy handles

Sharp images thanks to CsI-Plus sensor and autofocus

The advantages at a glance

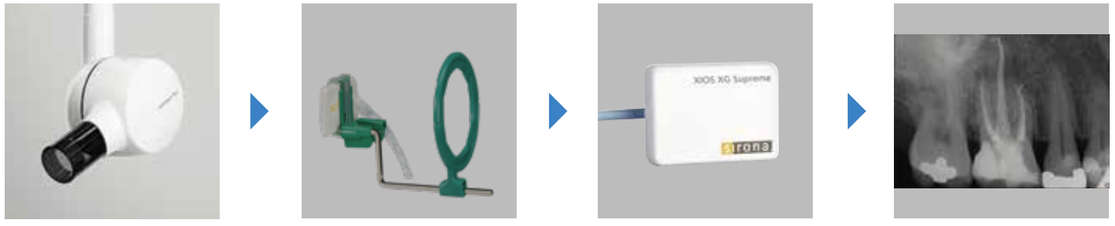
- Safe and intuitive operation
- Flexible due to different model variants
- Remote functions, also available outside the X-ray room operable
- Durability due to robust quality
- Device model directly integrated with the treatment unit: without interruption

Intraoral X-ray images of the highest quality

The right system for success

Expect only the best. For intraoral X-rays, the correct application and a reliable system makes all the difference. With the intraoral imaging products from Dentsply Sirona, you make the most of your X-rays. Images of the highest quality and sharpness?

Reproducible at any time? The highest level of patient comfort? With our intraoral holder systems, we fulfill all of these requirements – whether you are using intraoral sensors, imaging plates or film.



Thanks to the seamless integration of all our intraoral X-ray products, you always achieve the best image quality.

The advantages at a glance

- Always the highest image quality
- Maximum comfort for patients
- Efficient work
- Reliable reproducibility

Heliodent Plus

Fit to your needs

The Heliodent Plus intraoral X-ray unit is the ideal solution for every practice. Both the modularity of the installation options and the image quality exceed all expectations. Heliodent Plus provides the basis for optimum X-ray images and can be handled efficiently and safely.

Sophisticated installation

The Heliodent Plus adapts to every X-ray situation in your practice. Its versatility surpasses all expectations and seamlessly integrates into your practice. From a wall installation, to a unit integrated with your treatment center and a number of other options – you can choose what fits your needs best knowing that you'll be optimally supported in your workflow.

Heliodent Wall Model

Heliodent Remote Control

Heliodent Remote Timer

Heliodent Manual Exposure Button

Heliodent Plus device model integrated with the treatment unit

Heliodent Plus with Mobile Stand

Heliodent Plus Ceiling Mount

Ceiling combination with LEDview Plus

The advantages at a glance

- Outstanding image quality
- Image can be individually optimized by dynamic focus control
- 3 sensor sizes, choice of USB or WiFi module
- Simple sensor cable change

Xios XG Supreme

The perfect partner for your intraoral imaging

With 33 LP/mm* and a special CsI layer, the Xios XG Supreme offers you the highest level of image quality: low-noise, high-contrast and high-resolution X-ray images for your diagnosis, without wait time. Your true partner for chairside imaging, allowing you to work alongside your patient, and eliminating lengthy exposure time and unpredictable results. With the dynamic focus control, the images can be adjusted with just the click of your mouse. Five different examination enhancements support visibility of relevant clinical information with Xios XG Supreme: Hygiene, Endodontics, General Dentistry, Restorative, and Periodontics. Image sharpness, brightness and contrast can be individually specified in these modes.

Flexible: Xios XG Supreme is available as a USB or WiFi version

Cable replacement is simple and can be carried out chairside

Outstanding image quality for reliable findings

* Theoretical Resolution

The advantages at a glance

- Smooth entry into the digital X-ray world
- Simple workflow
- Various imaging plate sizes, automatic size detection during scanning
- Compact and high-quality design

Xios Scan

A smooth digital entrance

The Xios Scan enables a smooth and uncomplicated entry into the digital world of X-rays. If you switch from film to digital and at the same time want to use your familiar workflow, the imaging plate technology opens up a whole new world of possibilities for you. When you make the digital leap and decide to eliminate the need for a dark-room and chemicals, you gain a number of advantages in your practice. In addition to quality imaging to support your diagnosis and freeing up valuable practice space, your team continues to work in their well-rehearsed processes while increasing workflow efficiency.

Perfectly prepared

for each unique case and patient. You can choose from four different imaging plate sizes and easily create an entire image series. The white side of the plate supports better image quality allowing for easy visibility in the mouth.

Scanning without scratches

The Xios Scan‘s gentle loading feed without mechanical pressure avoids unnecessary scratching of the imaging plates and thus, ensures a particularly long service life. Bite protection and the hygienic protective cover provide additional security.

Picture Quality

The Xios Scan digital X-ray images are of outstanding quality and allow for fast and uncomplicated processing in Sidexis 4.

Technical Features

Features	Orthophos S 3D	Orthophos SL 3D
X-ray tube	60-90 kV, 3-16mA	60-90 kV, 3-16mA
Recording time panorama	P1: max 14.2s P1 Quickshot: max 9.1s	P1: max. 14.2s P1 Quickshot: max. 9.1s
Recording time Ceph	Standard 9.4 s / Quickshot 4.7 s	Standard 9.4 s / Quickshot 4.7 s
User interface	EasyPad	EasyPad
Patient positioning	automatic (occlusal bite block)	automatic (occlusal bite block)
Panorama technology	CsI Plus	DCS
Autofocus	yes	yes
Ceph boom (optional)	left or right	left or right
Ceph devices with 2 sensors	yes	yes
Quickshot	yes	yes
Capacity (dxh)	5x5 to 8x8 / 5x5 to 11x10	5x5 to 8x8 / 5x5 to 11x10
3D Low Can	yes	yes
HD mode	yes	yes
Stand	optional	optional
Wheelchair accessible	yes	yes
Remote release	optional	optional
Ambient Light	–	yes

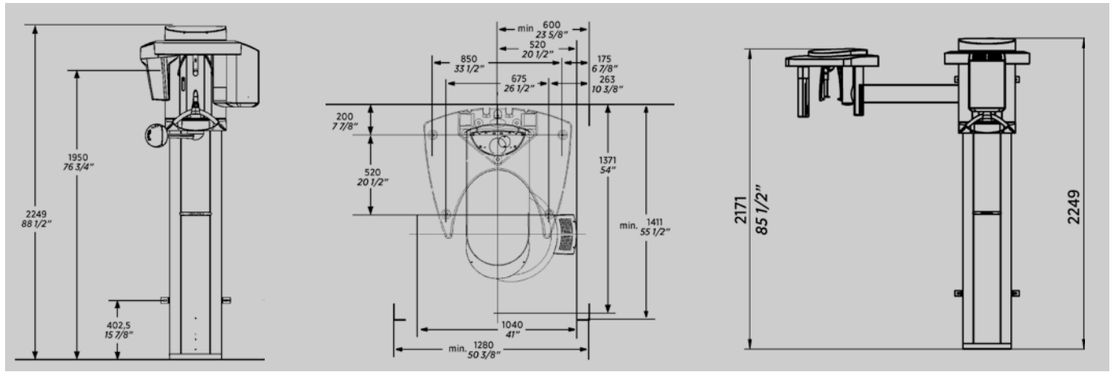
Xios XG Supreme	
Sensors	
Active area sensor 0	18 mm x 24 mm
Outer dimensions sensor 0	23.6 mm x 32 mm x 7.5 mm
Active area sensor 1	20 mm x 30 mm
Outer dimensions sensor 1	25.4 mm x 38.3 mm x 7.5 mm
Active area sensor 2	25.6 mm x 36 mm
Outer dimensions sensor 2	31.2 mm x 43 mm x 7.5 mm
Physical pixel size	15 µm
Measured resolution	28 LP/mm
Theoretical resolution	33 LP/mm
Cable length	Up to max. 2.7 m
USB module	
USB port of the USB module	version 2.0
Power supply	USB port
Wi-Fi	
Technology	IEEE 802.11b/g
Charging station for Wi-Fi interface	
Function	Storage and Charger with LED status indicator

Heliodent Plus	
Generator type	High-frequency generator for constant high voltage
Tube voltage	Selectable between 60 kV and 70 kV
Tube current	7 mA
Focal spot	0.4 (IEC 336)
Mains voltage	120-240 V ± 10 % without changeover, 50/60 Hz
Recording time	Selectable in steps from 0.01 s to 3.2 s
Detector media	Preset for E-Film and Xios XG sensors, exposure times individually adaptable, also for imaging plates and other sensor systems
Display	Multi-colour display for displaying the different system states
tube length (focus-skin distance)	Standard 20 cm, optional 30 cm
installation options	Wall mounting with three arm lengths, Device model on treatment unit, Installation with manual release, Remote Control without remote timer, ceiling model, Ceiling combination with LEDview, mobile model

Xios Scan	
Dimensions (L x W x H)	363 mm x 163 mm x 286 mm
Weight	7.3 kg ± 0.5 kg
Pixel size	23 µm
Theoretical resolution	22 LP/mm
Interface	LAN

Dimensions of intraoral imaging plate	
Size 0	31 mm x 22 mm
Size 1	24 mm x 40 mm
Size 2	31 mm x 41 mm
Size 3	27 mm x 54 mm

Technical Dimensions



Orthophos: space requirement min. 1,280 mm x 1,411 mm

Orthophos: with Ceph arm min. 2,155 mm x 1,411 mm

PC Requirements

Requirements for the X-ray PC

Orthophos	S 3D / SL 3D	S 2D / SL 2D
Operating system	Windows 7 Professional/Ultimate (64 bit), Windows 8.1 Professional (64 bit), Windows 10 Version (64 bit)	
CPU	≥ 2.3 GHz QuadCore with SSE3 support (Intel ≥ i7-3xxx or comparable)	SL*: ≥ 2.3 GHz QuadCore with SSE3 support, (Intel ≥ i7-3xxx or comparable) S: ≥ Intel i3 3rd Generation or comparable RAM 16 GB
RAM	16 GB	
Hard disk	≥ 1 TB free hard disk space	
Graphics card	DirectX 11 graphics card (2 GB RAM dedicated) with latest graphics card driver (Find a list of tested graphic adapters in the Dentsply Sirona dealer area.)	SL*: DirectX 10 graphics card (1 GB RAM dedicated or Intel Onboard Graphics with latest graphics card driver) S: DirectX 9.0c graphics card (512 MB RAM dedicated) or Intel Onboard Graphics with the latest graphics card driver
screen resolution	Minimum 1280 x 1024 pixels Recommended 1600 x 1200 pixels	

* With panorama editor

Requirements for Sidexis 4

Workstation-PC	Sidexis-Server	Mind. for 2D-Station	Mind. for 3D-Station
Operating system*	Windows Server 2008 R2 Windows Server 2012 R2 Windows Server 2016 Windows 7 Pro SP1 (64bit) Windows 8.1 Pro (64bit) Windows 10 Pro (64bit)	Windows 7 Pro SP1 (32 or 64bit) Windows 8.1 Pro (64bit) Windows 10 Pro (64bit)	Windows 7 Pro SP1 (64bit) Windows 8.1 Pro (64bit) Windows 10 Pro (64bit)
CPU	≥ 2.3 GHz QuadCore processor with 64 bit (x64)	≥ 2 GHz DualCore	≥ 2.3 GHz QuadCore processor with 64 bit (x64)
RAM	≥ 8 GB	≥ 4 GB	≥ 8 GB
Graphics card**	≥ 1GB	≥ 512 MB	≥ 1GB
DirectX	DirectX 10 with WDDM 1.0 or higher driver	DirectX 9.0c	DirectX 10 with WDDM 1.0 or higher driver
Hard disk	> 1 TB	≥ 5 GB	≥ 5 GB

* For 64 bit operating systems the installation under Bootcamp is also released.
** To ensure that the interaction with the volume rendered in 3D is reliably "jerk-free", graphics cards with at least the following passport marks are required. GPU benchmark values recommended: NVIDIA: Passmark > 1000; AMD: Passmark > 1500; Onboard: > 540.

Procedural Solutions

Preventive
Restorative
Orthodontics
Endodontics
Implants
Prosthetics

Enabling Technologie

CAD/CAM
Imaging
Treatment Centers
Instruments

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