



Every dental practice is built differently. Imaging solutions should be just as unique.

We provide a greater level of clinical freedom through superior technology.

Our solutions can be tailored to fit the needs of your unique practice, allowing you to choose the modalities, scan protocols and FOV sizes that fit your treatment plans.





Convenience

One Size Fits All

RAYSCAN α and RAYSCAN α + accommodate patients of all shapes and sizes, and are even wheelchair accessible.

Complete Patient Care

Keep your patients in view during positioning and even after you leave the room. The RAYSCAN α + built-in monitoring camera allows you to focus on your patients, whether you are standing next to them or outside of the x-ray room.

Ease of Use

With an intuitive user interface and easy to use touchscreen, selecting the appropriate scan protocol is just a few clicks away. By using our unique wireless RF(radio frequency) remote controller, user does not need to point directly at the receiver of the system.

A Smart Choice for Practices Big and Small

Adaptive Tube Cooling Time(ATCT) prevents the RAYSCAN α and RAYSCAN α + from overheating, even during heavy use. This innovation makes the systems suitable for any case load, with no waiting in between scans.

Work Smarter with Wireless Technology

RAYSCAN Web allows you to view images and patient information remotely, including via IOS and Android devices.

The Freedom of Choice

Panoramic

Clarity unlike ever before

High-definition Image Quality Low-dose Imaging Protocols Touch-screen User Interface Upgradable Platform¹

Imaging technology is constantly changing and evolving, so it is crucial to invest in a system that can keep up with the imaging demands of the modern day dental practice. The Panoramic imaging technology of the **RAYSCAN** α and RAYSCAN α +(Alpha Plus) is fully equipped with market-proven protocols, high-resolution image quality with reduced radiation dose and an intuitive user interface.

Adaptive Moving Focus Technology

Adaptive Moving Focus(AMF) technology optimizes the focal trough during panoramic acquisitions, improving clarity and reducing the risk of re-takes.





Completely Upgradable¹

The RAYSCAN α and RAYSCAN α +(Alpha Plus) are both designed to be upgradable from panoramic imaging to cephalometric, and RAYSCAN α is upgradable to Cone Beam Computed Tomography(CBCT) in your office. So, as your practice's service offerings grow, so can your diagnostic capabilities.



Low Dose and EIP Technology

Our Enhanced Image Processing algorithms remove noise from the image and enhance edges with less radiation and reduced exposure times. Optimized pediatric examinations further reduce radiation exposure and maintain image quality when treating children.







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Panoramic Exams

Cephalometric More Choices Based on Your Practice

The optional cephalometric module can be added to either the RAYSCAN α and RAYSCAN α +(Alpha Plus), proving you with excellent image quality for orthodontic applications.

Various Options for your Practice

Scanning Cephalmetry Our scanning ceph module allows clinicians to upgrade their diagnostic capabilities while keeping costs to a minimum. High-resolution images provide all the clinical information needed while keeping radiation exposure low.

You can choose between one-shot and scanning cephalometric options.



One-Shot Cephalometry

Our cutting-edge flat-panel detector(FPD) provides a new level of performance and reliability while reducing radiation exposure and image distortion due to patient movement. Two different sizes of FPD are available.

High-Definition Image Quality

With high performance detectors and our advanced technology, we provide superb image with detailed clinical information which provides even outline of soft tissues.





Cephalometric Exams

Adjustable Field of View²

Motorized collimation allows you to customize the cephalometric field of view to fit the needs of each clinical situation. It allows you to scan each patient with optimal image size without unnecessary radiation dose.

No Size Limit

Our up to date technology supports the world's best flexibility in cephalometric image format. Sizes of image format vary from 17x15cm to 33x33 cm.

Minimized Moving Artifact

Cutting edge artifact reduction technology ensures great image quality by reducing artifacts in the image associated with patient movement.

Cone Beam CT

CBCT - Infinite Possibilities

An Imaging Revolution of CBCT²

RAYSCA

A breakthrough in patient positioning, practitioners can now display the acquisition field of view(FOV) on the patient's face, indicating the exact area being imaged during the examination.

Choose from pre-set fields of view(5x5, 8x6, 10x5, 10x10, 12x10 or 16x10) or create your own custom field of view based upon unique treatment situations. The possibilities are literally limitless.

A visibility of X-ray - The Guiding Light²

Unique to the RAYSCAN α +(Alpha Plus) is an innovative light-based positioning system that superimposes the scan field of view on the patient's face, allowing you to actually see the exact area being exposed prior to scanning. The Guiding Light is applied for panoramic, cephalometric and CT scanning.



True Low - Dose Imaging

Through the utilization of pulsed x-ray exposure, exact collimation, and reduced scanning times, radiation dose has been lowered up to 98%³.

Fast Scan Time - Min. 4.9 sec

Industry - Leading Resolution



Ultimate Image Reconstruction

x-ray dose. is applied to specific protocols of RAYSCAN α +.



Conventional

The image reconstruction algorithms reduce the processing time of x-ray data dramatically by effective utilization of Graphics Processing Unit, specialized to accelerate the creation of images. For example, the algorithms produce 3D images of JAW protocol as less as 1.5 second.

CBCT images have never been clearer, with resolution up to $70\mu m^2$ (available at Endodontics protocol)

Our newly developed image reconstruction algorithms provide clearer images with drastically reduced

Iteration algorithm², which is widely used in Medical CT to reduce x-ray dose and enhance image quality,



Iteration

Free FOV² with Multi FOV presets

Powerful and User Friendly 2D imaging Software

Our advanced SMARTDent software utilizes a simple, user friendly graphic based interface for 2D image analysis.



Select from pre-set FOV options and further customize to fit your exact diagnostic need, limiting the image area to a very precise FOV. Each FOV is designed for specific clinical situations and can be adjusted based on unique treatment needs. (Min. 3x3 to Max. 16x10 or 12x10)





SMARTDent allows you to review images in up to 4 windows, making case comparison simple.



SMARTDent's Full Mouth X-ray(FMX) functionality makes capturing and displaying a full mouth series of images a painless process.

SMARTDent

Flexible Layout



FMX Function

RAYSCAN web⁴

- Compatible with tablets and smart phones
- Convenient access anywhere, anytime in your clinic





Please note that as a generic viewing application RAYSCAN web is not suited for diagnostic purposes. However, it is an excellent tool for communication based on images retrieved from SMARTDent.

Powerful Networking and DICOM 3.0 Compatibility

SMARTDent improves networking and case collaboration to new heights with TWAIN support and PACS functionality.

- Dental image management with 16 bit full imaging system
- Collaboration with PACS system
- DICOM print and CD/DVD burning
- TWAIN support
- Touch device support for Windows OS



3D Imaging Software⁴

- 3D image view with intuitive user interface
- Implant simulation with adjustment of sectional view
- STL export with Watertight mesh level
- Airway segmentation and analysis

Ceph Software⁴

Excellent image processing and measurement tools
Lateral full-head cephalometric analysis
Tracing and image superimposition

Advantages

While we care you, you care patients

RAYSCAN α and new RAYSCAN α + are comprised of different options including panoramic, cephalometric with 3 available options, and CBCT with different FOV options such as 9x9cm, 12x10cm and 16x10cm. RAYSCAN's variation from the combination of available option will keep you up with up to date technology as well as changing clinical requirements.

You choose options that fits into your specific needs and we provide you the solution.

		α		α+ 160		α+ 120	
		CBCT	Panoramic	СВСТ	Panoramic	СВСТ	Panoramic
	Detector type	СМОЅ	CMOS	СМОЅ	CdTe	СМОЅ	CMOS
	FOV / Image size	9x9cm	Max. 14.8cm (H)	Max. 16x10cm	Max. 15cm (H)	Max. 12x10cm	Max. 14.4cm (H)
	Free FOV support			Yes	Yes	Yes	Yes
	Voxel size	140~230µm		70∼400µm		70∼400µm	
Images may contain optional items.	Exposure time	14sec	2.0~14sec	4.9~14sec	2.0~14sec	4.9~14sec	2.0~14sec
Available configurations and features may have country or area specific variation.		Cephalometric (Option)					
Notes	Туре	SC (Scanning Ceph)		OCL (One shot Large)		OCS (One shot Standard)	
1 Platform upgrade is subjective to the regulation of each country.	Detector type	CdTe detector		a-Si TFT		a-Si TFT	
2 Features of RAYSCAN α + only	Image size	Max. 26x24cm		Max. 33x33cm		Max. 30x25cm	
3 Effective dose is compared by internal tests.	Detector pixel size	100µm		139µm		139µm	
4 Optional items may have variation in their features.	Exposure time	4.0~10	.4sec	0.3 / 0.8s	20	0.3 / 0.8sec	
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Dimensions (Unit: mm / inch)

Suggested Operating Space	Top View	Front View	Suggested Operating Space
1.500(59.1") 1,100(66.9")	1.1844 1,093(43") 1,093(43")	Max: 2,296 (90.4")	2.060(81.17)

RAYSCAN a

Туре

Focal spot

Tube current

Tube voltage

Patient positioning

Max. 164kg (361.56lb)

Max. 176kg (388.1lb)

Specification subject to change without prior notice.

Technical Specifications

RAYSCAN *a*+ (Model: RCT700)

Panoramic, Cephalometric, Cone Beam CT Standing or sitting (wheelchair accessible)

0.5 4~17mA 60~90kVp

Top View

Front View





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