



reddot design award
winner 2012



"Passion for Creative Technology"

Digital Imaging Diagnostic System for Experts

RAYSCAN^α



Optimum Multiple Variation System for Experts

Scan Ceph

- Scanning time : Min 4 sec.
- HD mode provided

Preview function provided

Can decide whether to rescan immediately after scanning

10" wide touch monitor

Cephalometric System

- Big Size F.O.V (33cm x 33cm)
- 0.3 second scanning time

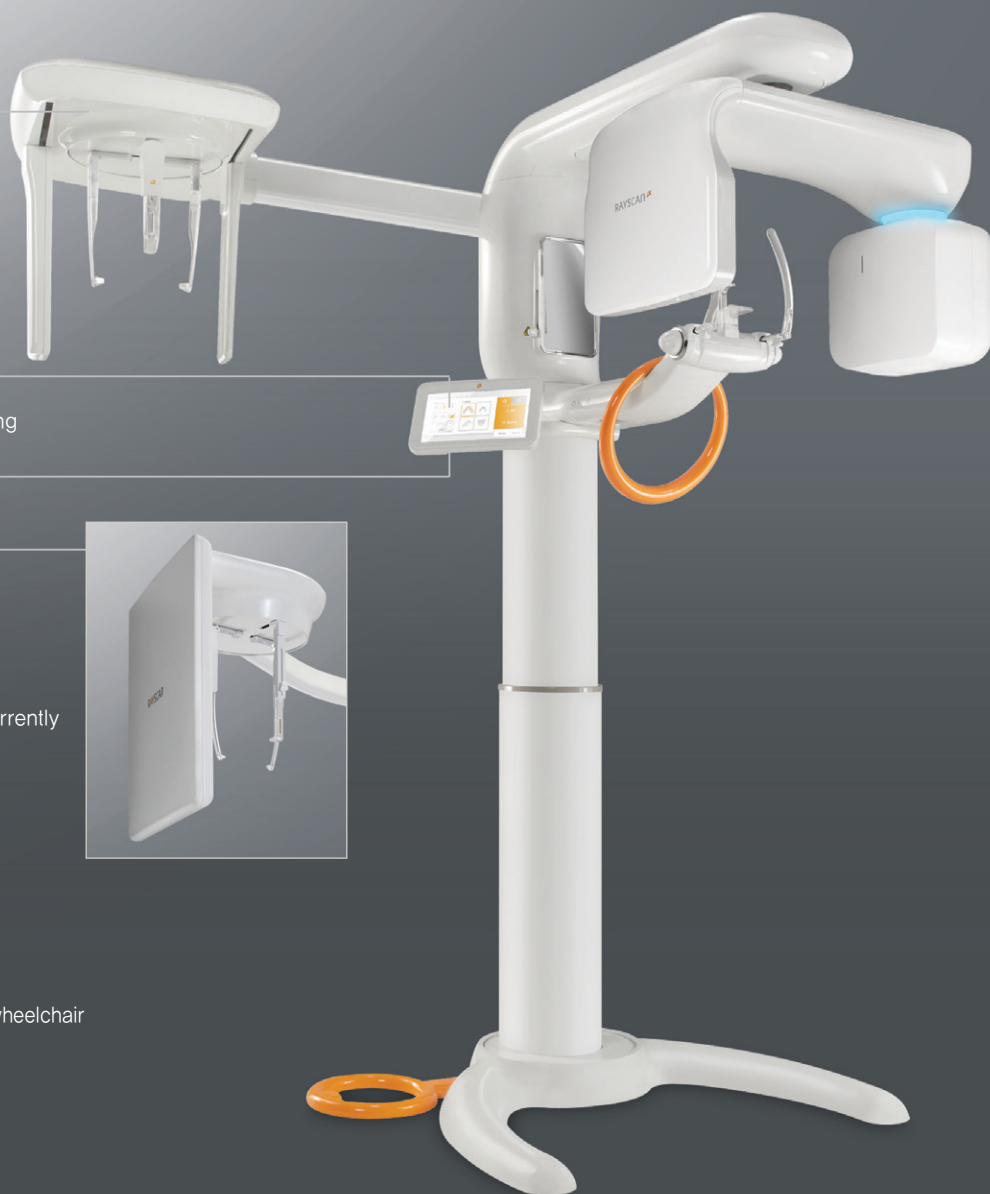
[Convenient wireless remote control]

Can adjust patient's position and control the device concurrently



[Suitable for wheelchair and children]

Open structure of the base enables scanning for patients in wheelchair



01_ Expert Series are fitted with 3 detectors for panoramic system, cephalometric system and CT to provide the best image quality.
Separate detectors for panoramic system, cephalometric system and CT enable effective image diagnosis.

02_ Prolonged life span of the detectors

While 3 detectors are used, life span of the detectors get prolonged.
Since there is no movement of the detectors by hand, the possibility of damage is minimized.

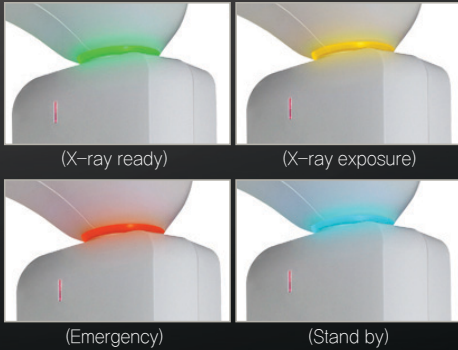
03_ Beautiful and compact design

Classy and modern design brightens clinic atmosphere.
Winner of reddot design award 2012, one of the world's 3 largest design competition.



Emotional LED Lamp

Exposure status distinguished by LED lamp color



Patient considering handle

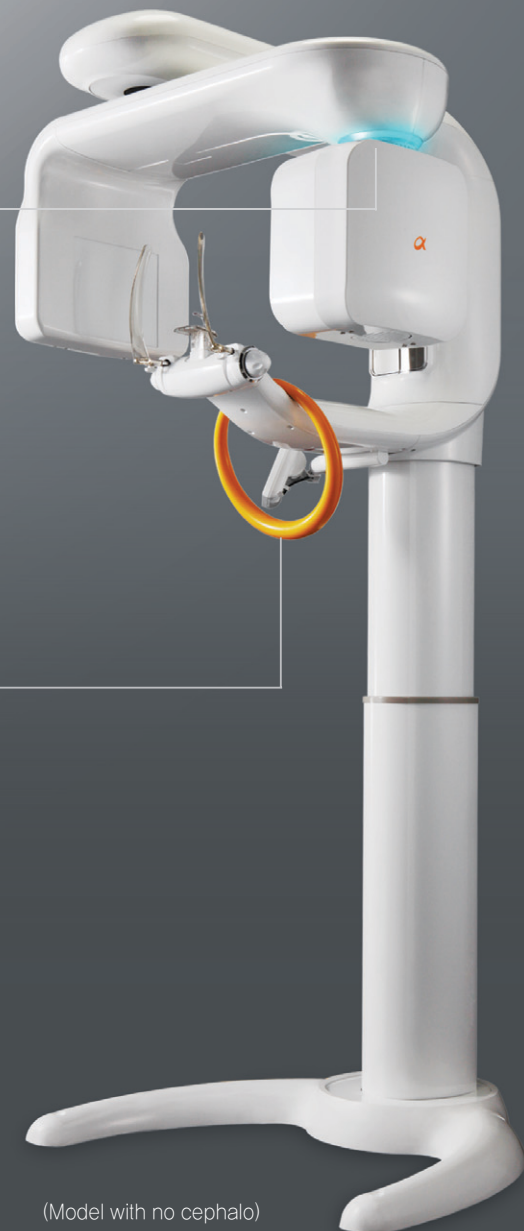
Design providing comfortable grip to all patients from men and women of all ages

[Auto positioning]

Can be adjusted scan position automatically by using patients' information

[S/W interface for touch panel / mouse control]

OS : Windows

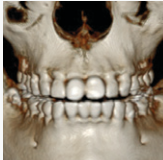
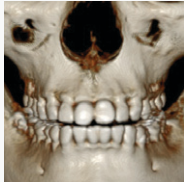
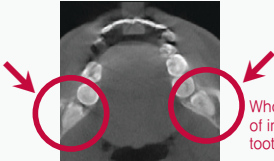
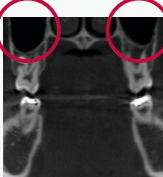
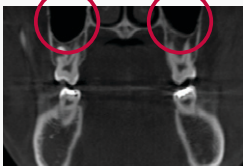
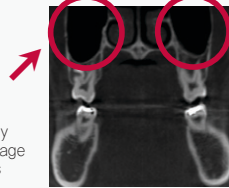


(Model with no cephalo)

Optimum Image Provided for Dental Implant

• Optimum F.O.V(9X9) size for implant treatment and diagnosis

- Provides image for both upper and lower jaw in one scan
- Provides large size images useful for various implant treatment and other dental treatment

F.O.V size	8cm x 8cm (Other Company)	12cm x 8cm (Other Company)	9cm x 9cm (RAYSCAN α)
3D			
Axial	 Cut image of impacted tooth		 Whole image of impacted tooth
Coronal	 Relatively small image of sinus	 Relatively small image of sinus	 Sufficient image of sinus

*Image of man in forties

• Professional CT mode provided

	Standard mode	Provides image for analysis Standard CT analysis
	SG mode (Surgical Guide)	Provides optimum image for making surgical guide
	IS mode (Implant Surgery)	Provides optimum image for implant surgery, supernumerary tooth, impacted tooth, and bone absorption
	ET mode (Endo Treatment)	Provides optimum image for endodontic treatment and root canal analysis
	TMJ mode	3D images for hospitals specializing in TMJ treatment
	Sinus mode	High quality images for sinus treatment

High quality images



Cross-sectional (Panoramic) view : High-tech reconstruction technique produces images with clear view of root canal, periodontal membrane and alveolar bone.

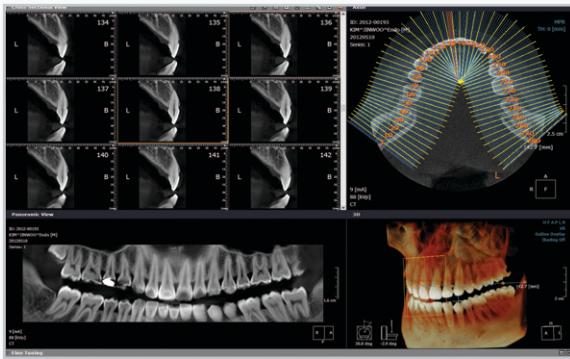


MPR (Sagittal view) : Sharp images of mandibular nerve and clear frontal incisor enable accurate diagnosis.

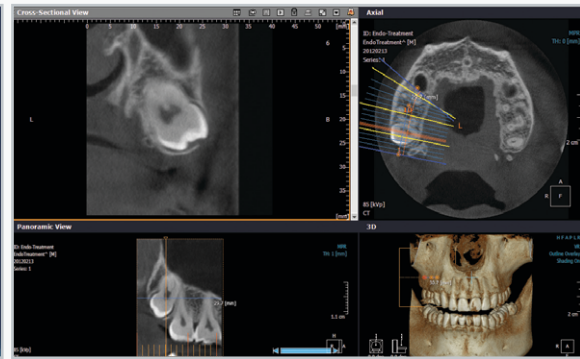


MPR (Axial view) : Clear images of periodontal membrane and root canal enhance diagnosis and treatment.

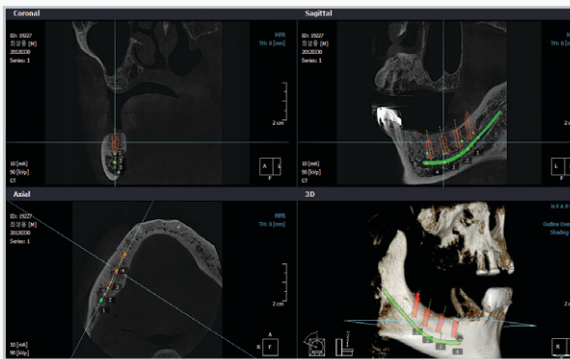
Various Images for Accurate Diagnosis and Dental Treatment



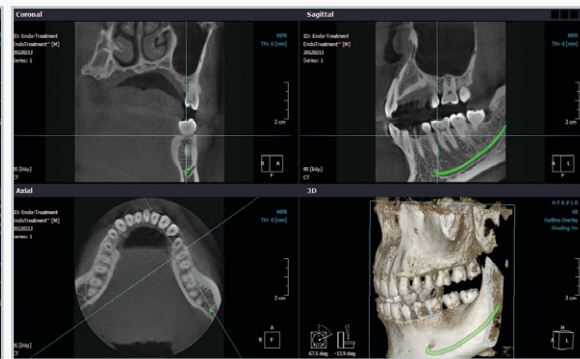
Cross-sectional (Panoramic) view



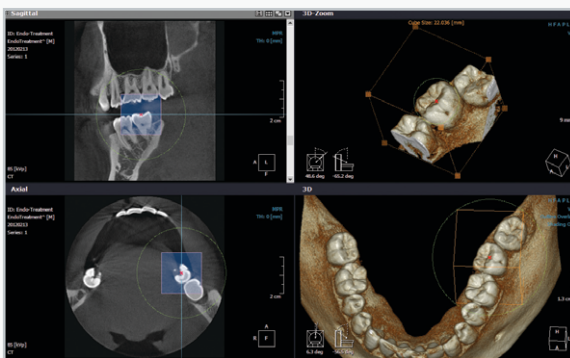
Cross-sectional (Impacted tooth)



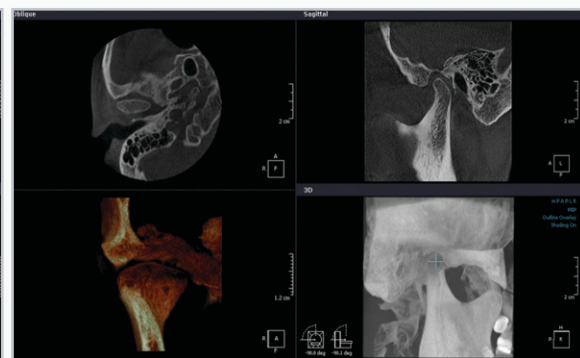
Implant Planning



Canal Drawing



3D Volume Rendering



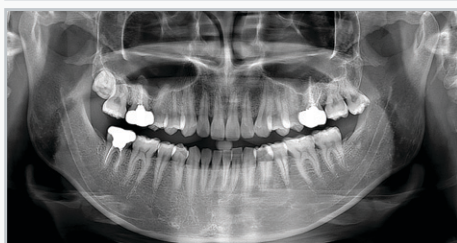
TMJ

Panoramic System

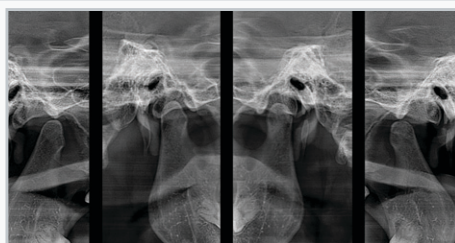
Efficient Image Diagnosis by Smart Panoramic System

- **Real Panoramic System**

By applying panoramic detector, high quality image is attained, minimizing load on the detector.



Standard



TMJ Mode



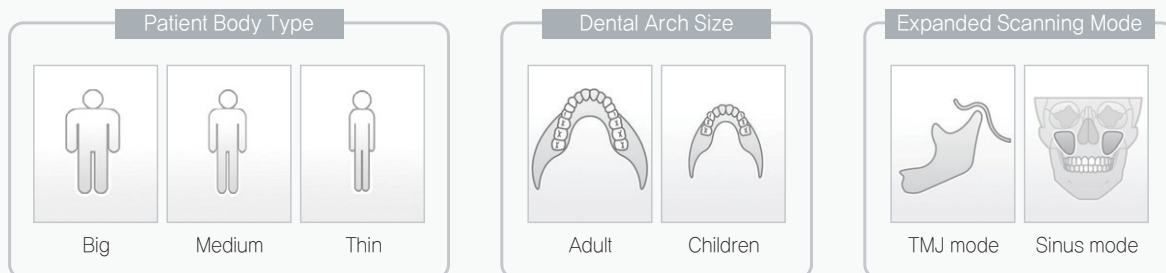
Sinus Mode

- **Selectable Panoramic View**

Among 5 stages from soft to hard, user can set degree of resolution of the panoramic image, according to their preference.

- **Various Modes Provided for the Best Image**

Since every patient has a different dental arch, the selection mode is essential for panoramic scanning to produce best image.



Ceph (Scan)

High Quality Images for Accurate Orthodontic Treatment



• Scan Ceph

- Detector for Ceph only : Minimized defect and damage by detachment/attachment
- Fast scanning time : 4 second scanning suitable for children
- HD Mode : High quality image produced

• Various Scanning Modes



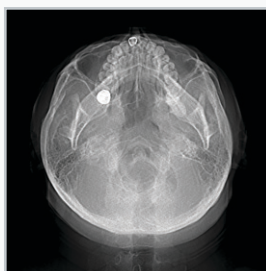
Lateral



PA AP



Carpus



SMV



Lateral Wide

• HD Mode

- Lateral, PA, SMV, Carpus mode provided
- Exposure to radiation reduced by short scanning time

Scan time(sec)	Lateral	High Speed	Lateral Wide
Standard	4.0		5.2
HD Mode	8.0		10.4

High Quality Image for Orthodontist



One-shot Cephalometric System

- 0.3 second scanning time : Motion artifact is minimized
- Patient consideration : Short scanning time reduces inconvenience to patients, suitable for children
- Low Dose : Short scanning time decreases radiation dose significantly compared to scan type cephalometric system

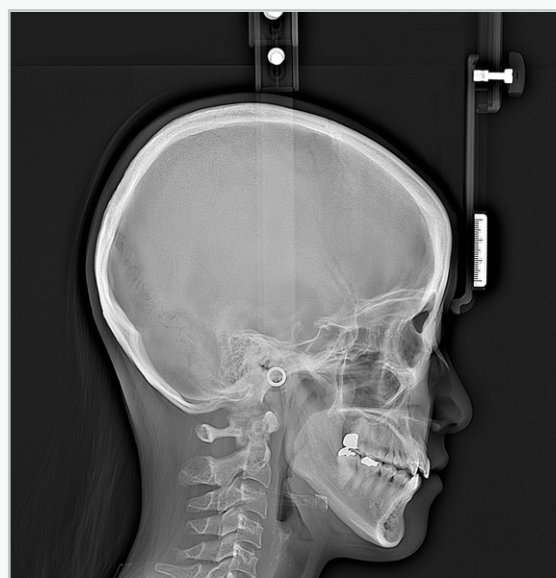
World's biggest F.O.V size(33cm x 33cm)

Big image provided for accurate orthodontic diagnosis

Highest image quality



- Applying Samsung Flat Panel Detector, used for medical devices
- Clear image showing hair and soft tissue



RAYSCAN α -Expert

Various scanning modes provided



PA, AP



Lateral



SMV



Carpus



Reverse Town's



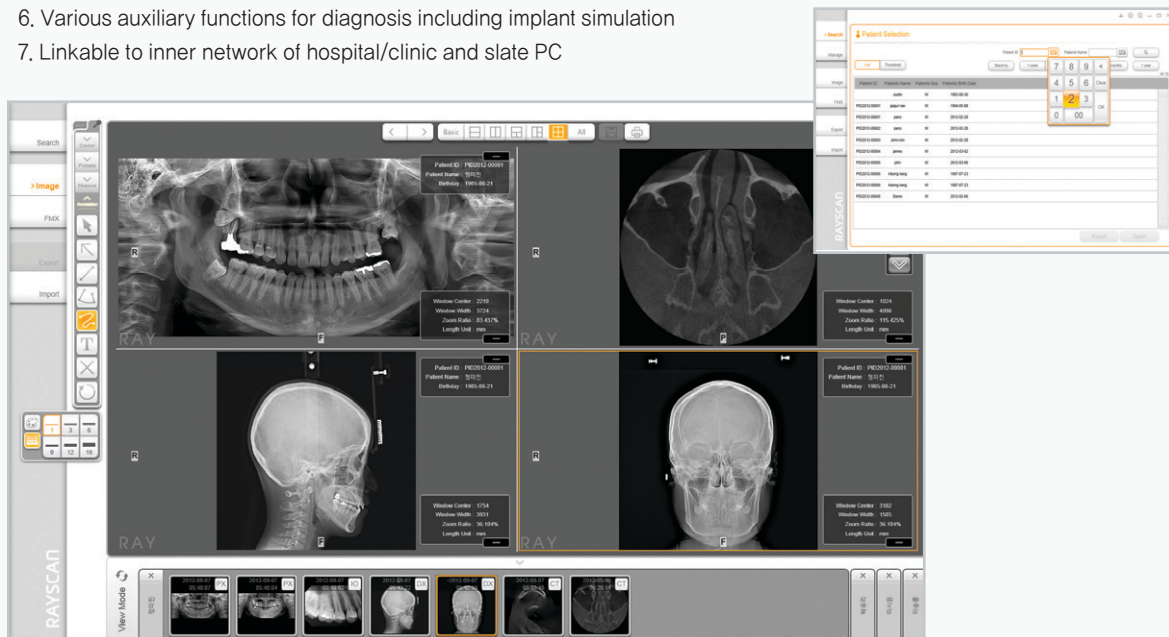
Waters

Software

Smart & Easy User Interface

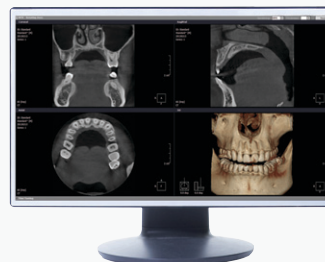
• SMARTDent (2D S/W)

1. Scanning Function Provided
 - Provide scanning function of I/O sensor/camera, and image viewing function
 - Operable by touch monitor on the unit chair
2. Linkable to 3D Viewer
 - Selected CT image can immediately be seen by linked 3D viewer
3. Full DICOM Support for Various Healthcare Environment
4. FMX View Layout
 - Various view layout provided for convenient comparison on images
5. G.U.I (Graphical User Interface) superior to PACS Viewer
6. Various auxiliary functions for diagnosis including implant simulation
7. Linkable to inner network of hospital/clinic and slate PC



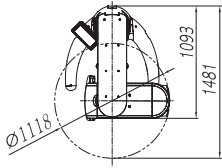
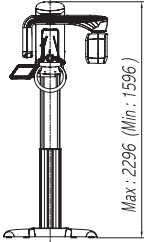
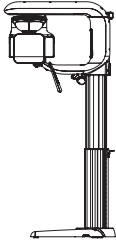
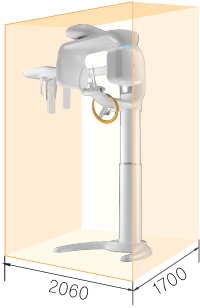
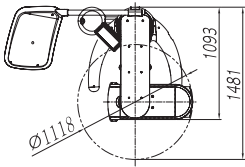
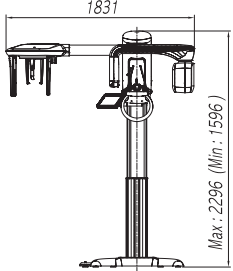
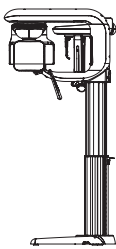
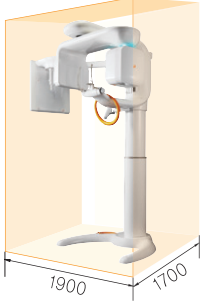
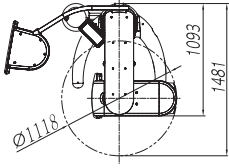
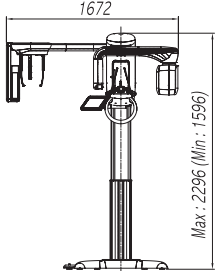
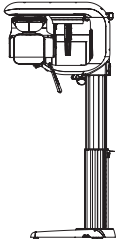
• Xelis (3D S/W)

- Panoramic images and Cross-sectional images provided
- MPR, MP, X-ray, VR and shading image provided
- Nerve canal drawing function provided
- Implant model and library provided
- Layout for TMJ viewing provided
- Function for saving and sharing work course provided
- DICOM printer and CD/DVD burning function provided



Product Model & Dimensions

(Unit:mm)

View	Top View	Front View	Side View
			
RAYSCAN α-P (Pano) / RAYSCAN α-3D (Pano + CT)			
			
RAYSCAN α-SC (Pano+ Scan ceph) / RAYSCAN α-SM3D (Pano + CT + Scan ceph)			
			
RAYSCAN α-OC (Pano + One-shot ceph) / RAYSCAN α-Multi 3D (Pano + CT + One-shot ceph)			

Technical specification

RAYSCAN α -Expert / Expert3D				
Type	Cone beam			
Patient positioning	Stand type			
Focal spot	0.5mm			
Tube voltage	60~90kVp			
Tube current	4~17mA			
Dimension (WxDxH)	• Cephalometric system excluded device: 1,118mmx1,481mmx2,296mm • Scan Cephalometric system included device: 1,831mmx1,481mmx2,296mm • One-shot Cephalometric system included device: 1,672mmx1,481mmx2,296mm			
Weight	• RAYSCAN α-P : 140.5kg • RAYSCAN α-3D : 150kg • RAYSCAN α-SC : 166.5kg • RAYSCAN α-OC : 167kg • RAYSCAN α-SM3D : 175.5kg • RAYSCAN α-Multi 3D : 176kg			
Detector type	CT Flat Panel Detector	Pano Line Detector	Scan Ceph Line Detector	One Shot Ceph Flat Panel Detector
F.O.V size	9cm×9cm	14.8cm	26cm×24cm	33cm×33cm
Voxel size[CT]	0.143mm ³ ~ 0.286mm ³	–	–	–
Magnification	1.4	1.3	1.1	1.1
Scan time	14sec	14sec	4.0~10.4sec	0.3sec

