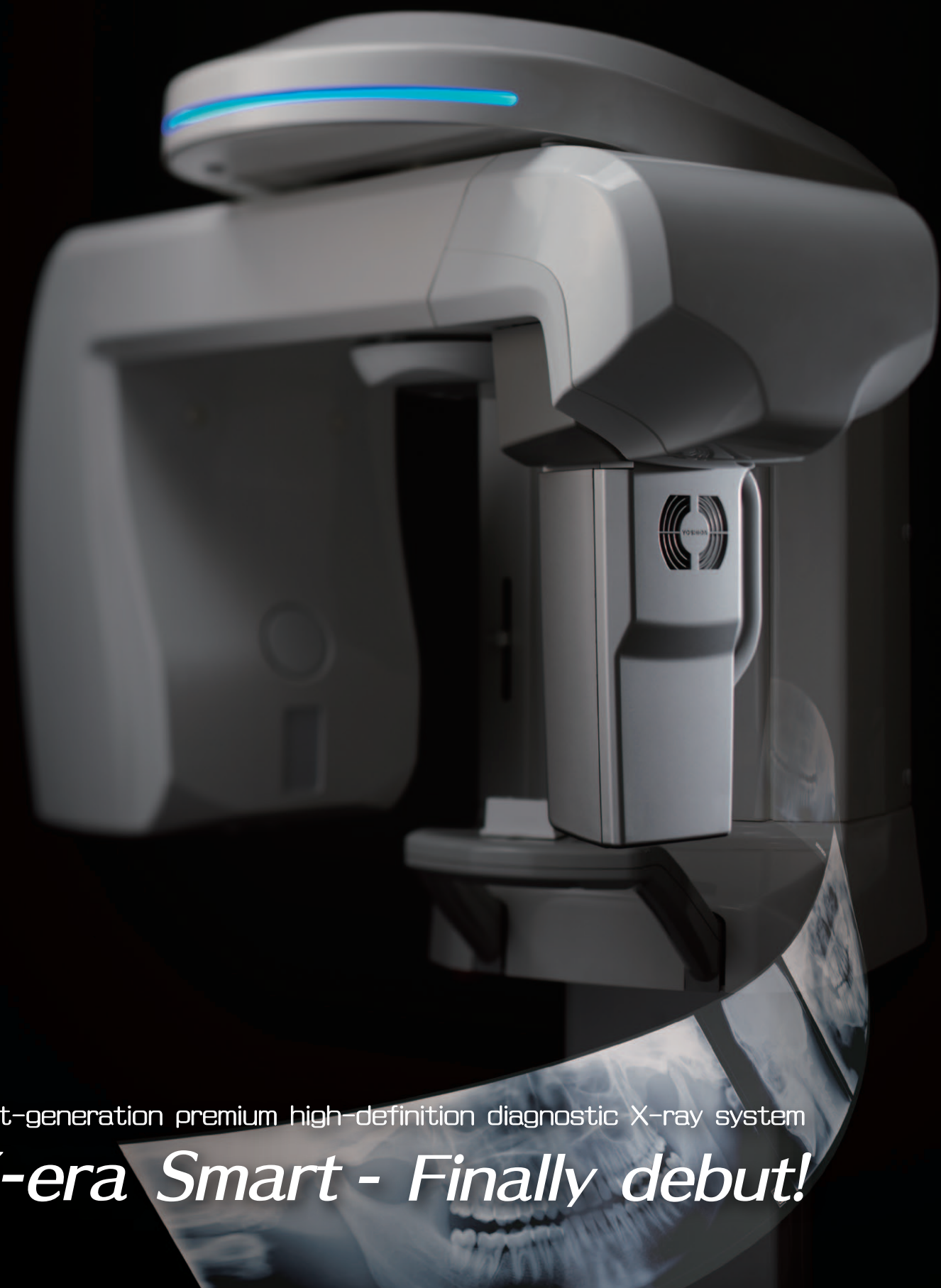


YOSHIDA

X-ERA SMART



Next-generation premium high-definition diagnostic X-ray system

X-era Smart - Finally debut!

1 Super high definition clinical image quality for accurate diagnosis



Direct CMOS sensor

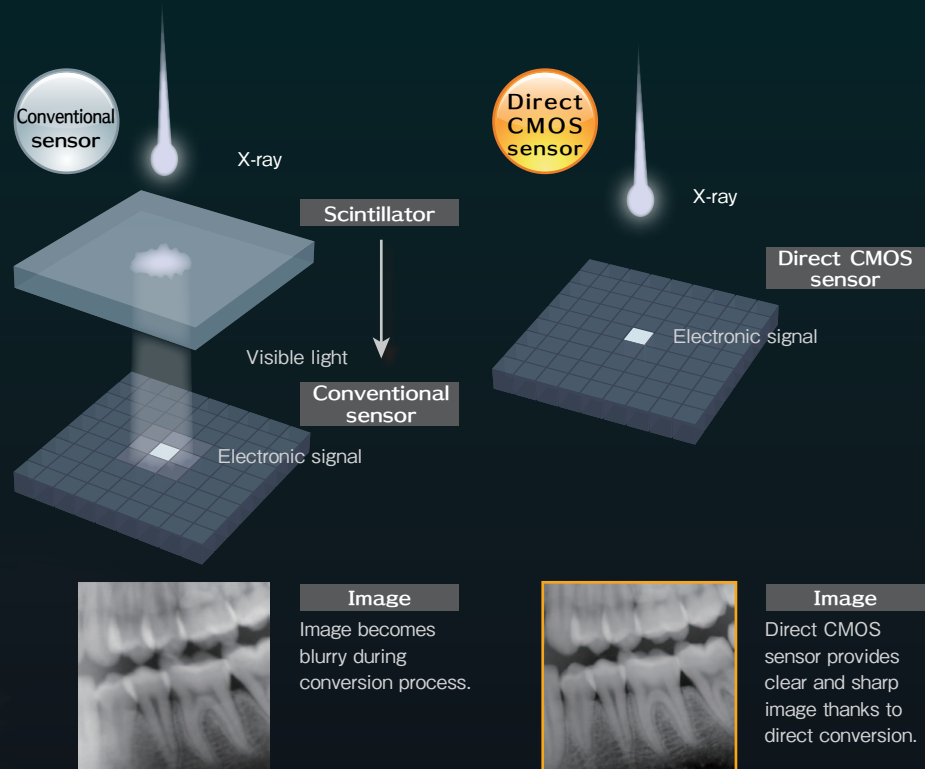
Semiconductor that is used for photon counting directly converts X-ray to electronic signal and create a blur-free image.

Conventional sensor

Conventional sensor converts X-ray to visible light by scintillator, and CCD element transforms the light into electronic signal. In that process, scintillator cause the electrons to diffuse, resulting in the blurry image.

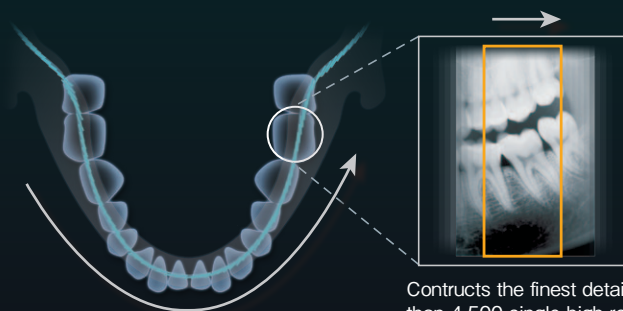
- 1 Adopting Direct CMOS sensor and unique image construction technology, blur-free and sharp image can be obtained.

●Sensor comparison - The image below is for your reference only



- 2 Constructs the finest details of more than 4,500 single high resolution images to provide sharp and high-definition image. (16 bit 65,536 grading)

●Image is for your reference only



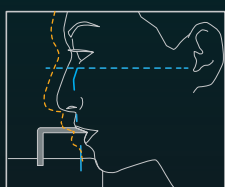
Constructs the finest details out of more than 4,500 single high resolution images

features

X-ERA The name X-ERA stands for X as mathematical symbol for the unknown, also for neXt generation, for eXceed, and for eXtend. And ERA for the beginning of new period.

2 Multi Focal Layer Technology enables optimal focusing

- 1 Unique panoramic image construction technology (Image Creator) automatically selects the most optimal focal layer position as exposure completes. Re-focusing on any spots is also possible to reconstruct the clear image.



〈 Incorrect positioning 〉



〈 Autofocus 〉

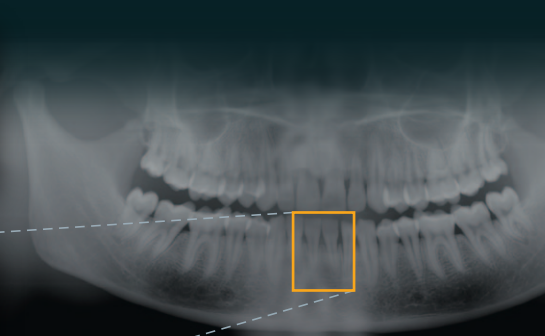
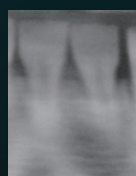


Image Creator

Focal layer position and shape can be adjusted to optimally focus the blurry imaged spot.

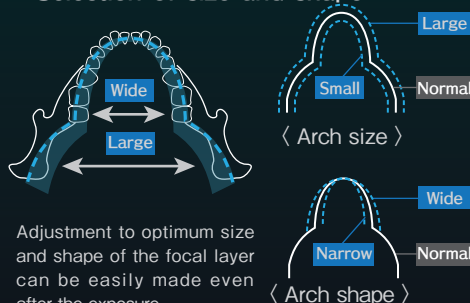
- 2 Active tomography allows reconstruction of the image corresponding to anatomical shape and size of each patient even after the exposure.

●Correction of Positioning error



Radiographic failure caused by incorrect patient positioning can be corrected easily by the unique adjustment feature even after the exposure, providing excellent panoramic image.

●Selection of size and shape



Adjustment to optimum size and shape of the focal layer can be easily made even after the exposure.

3 Patient Dose reduced by 50%

Direct CMOS sensor enables the high quality image while reducing the patient dose by 50%. (Compared to other YOSHIDA equipment)
By minimizing the exposure time, patient dose is also minimized. It also reduces risk of the retake due to the radiographic failure caused by patient's movement.

High speed
8 sec.



Child mode is featured to assure the safety of child patient.

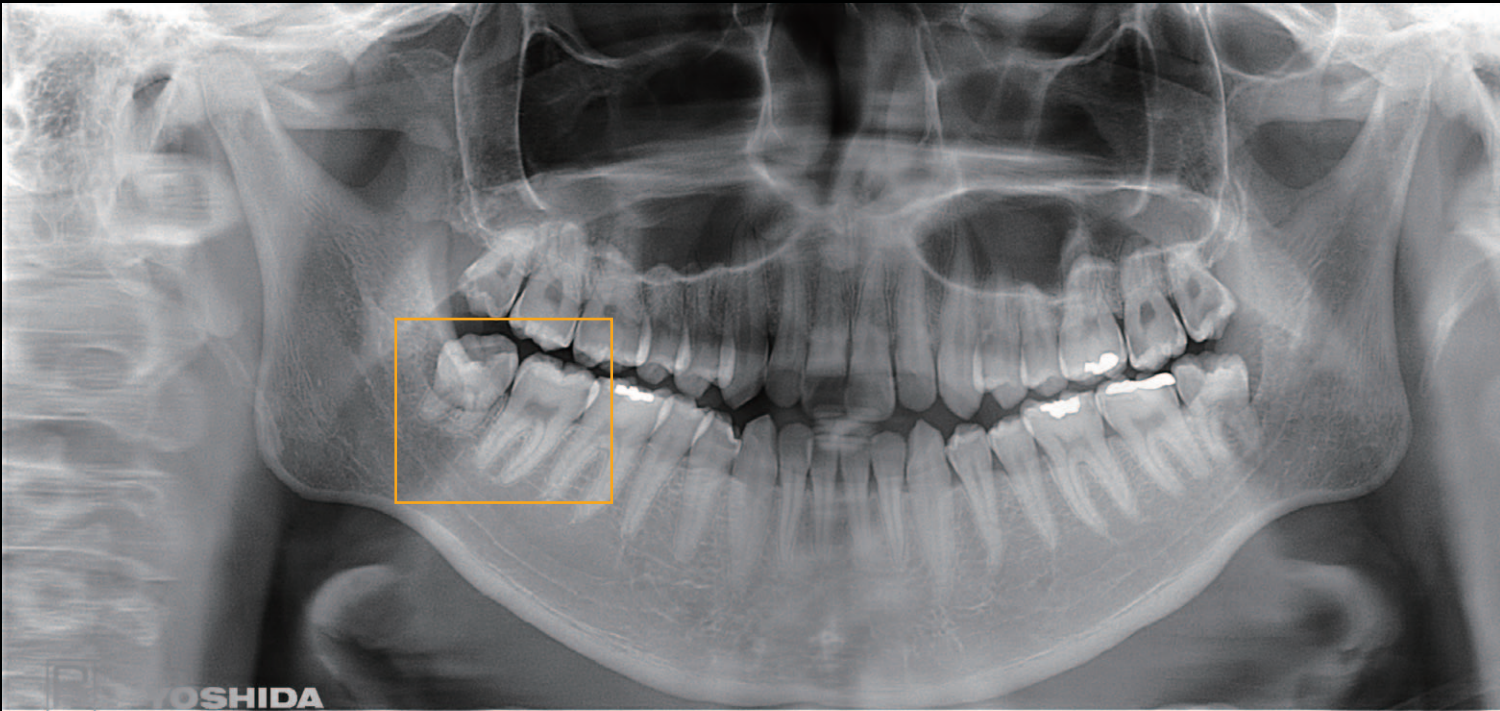
Next generation premium

Premium high-definition

Standard Panoramic

Direct
CMOS
sensor

High
definition
14sec.



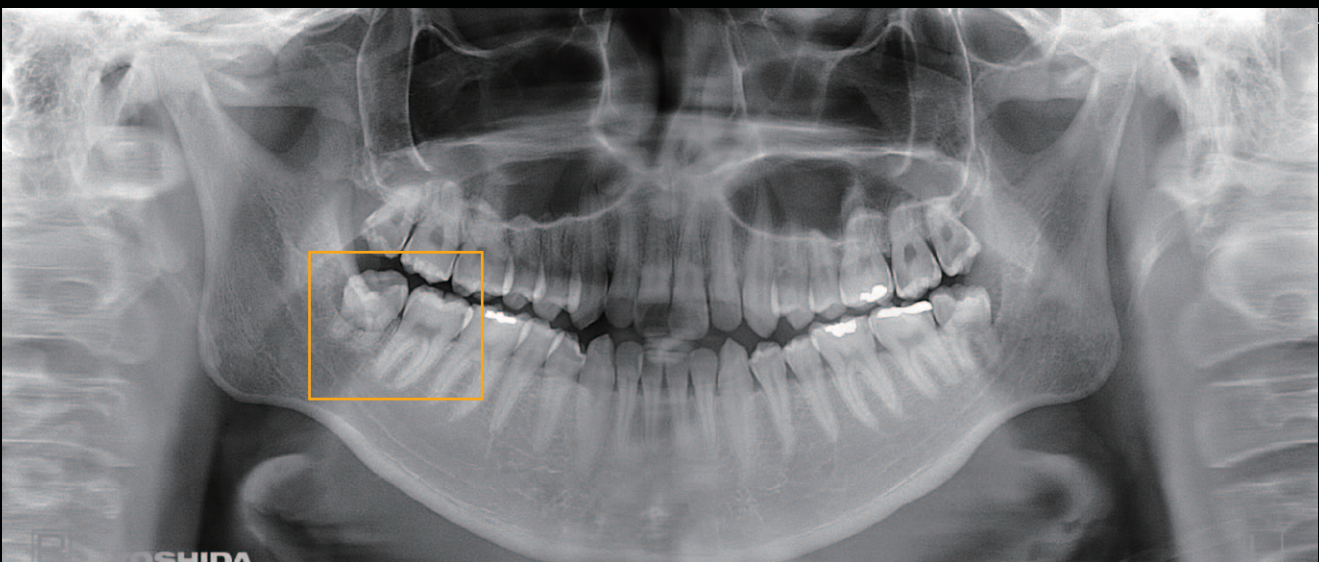
Adopting high-definition Direct CMOS sensor, unique panoramic construction algorithm actualizes the direct conversion from X-ray to electronic signal, creating super high-definition image with lower noise.

Various Exposure time can be selected to suit for each patient and clinical need

High speed exposure mode

Direct
CMOS
sensor

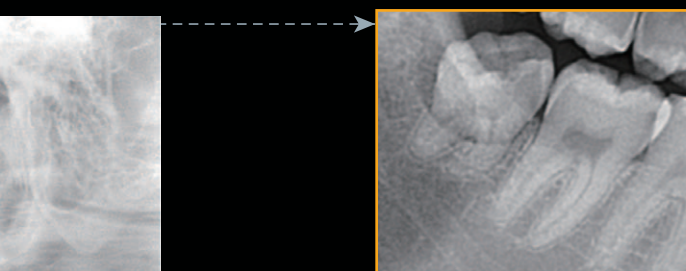
High
speed
8sec.



Even 8 second exposure provides high image quality optimal for accurate clinical diagnosis.

high-definition

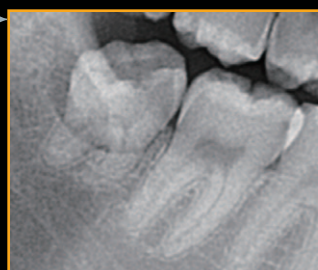
Image comparison



XERASMART
Standard Panoramic

Direct
CMOS
sensor

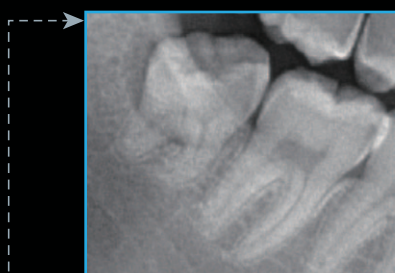
High
definition
14sec.



XERASMART
High speed exposure mode

Direct
CMOS
sensor

High
speed
8sec.



Conventional sensor image

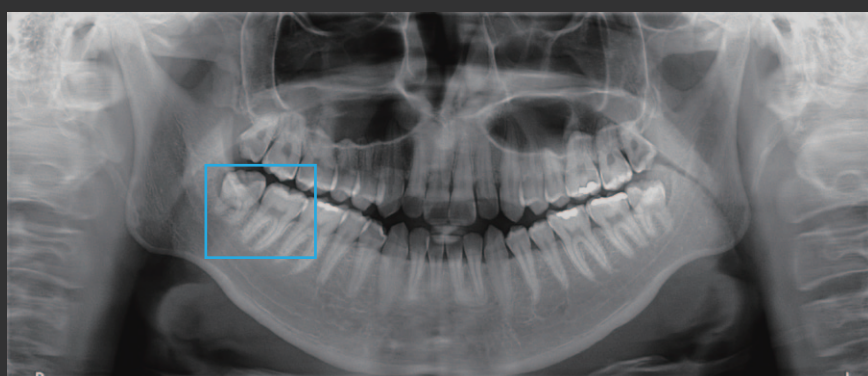
Conventional
sensor

16sec.

Conventional sensor image

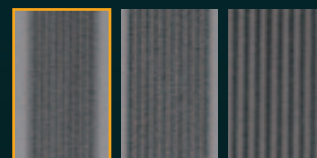
Conventional
sensor

16sec.

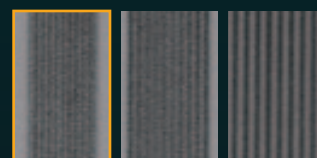


Evidence of superior clarity

Difference in Line Pair

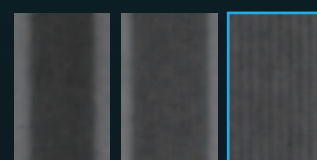


5 LP/mm **4 LP/mm** **3 LP/mm**



5 LP/mm **4 LP/mm** **3 LP/mm**

On X-er-a Smart Panoramic image, 5LP/mm is visually recognizable.

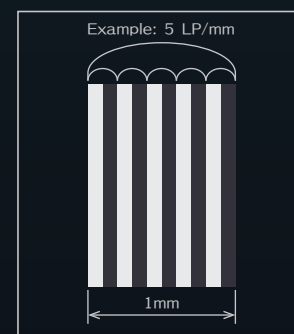


5 LP/mm **4 LP/mm** **3 LP/mm**

Line Pair (lp/mm)

What is "Line Pair" ?

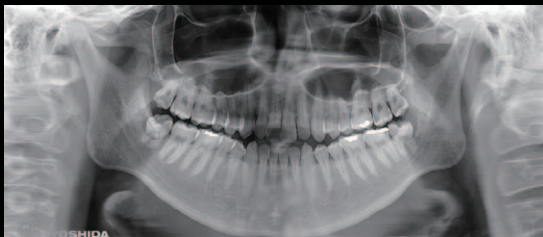
Line Pair is an index of resolution which counts how many sets of one black line and one white line are consisted in 1mm.



Exposure Modes

For smooth operation

Simple Exposure Mode



〈 Standard Panoramic 〉



〈 TMJ 2 views 〉



〈 Child panoramic 〉

For various diagnosis needs

Cephalometric Exposure Mode



〈 PA view 〉



〈 Lateral view 〉



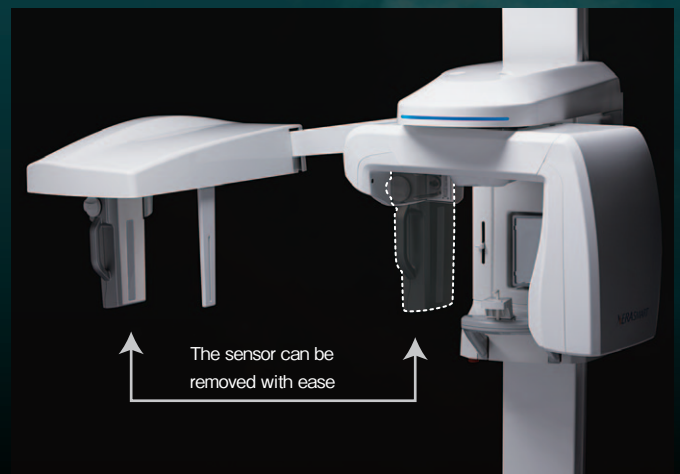
〈 Carpus view 〉

Easy Upgrade to cephalometric

With the same simple operability and compact body, it can be easily upgraded to cephalometric as needed.

Simply change the sensor position from panoramic to cephalometric, and cephalometric exposure can be performed.

*Sensor corresponding to cephalometric is needed.



Pursued usability

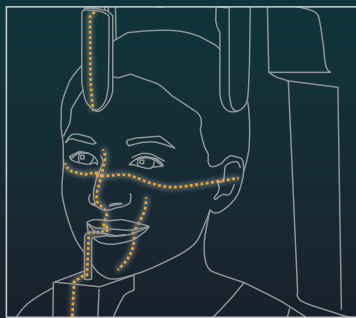
3-point head support

Patient's head is supported at 3 positions to keep it in place during exposure.



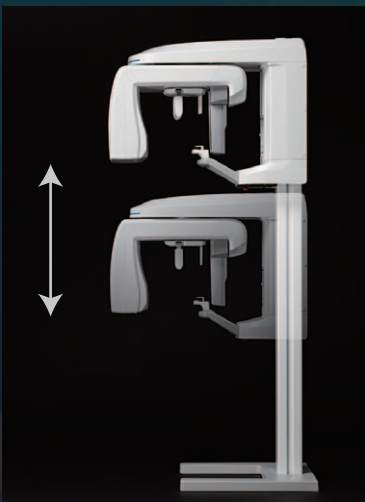
Simple positioning

3 directional beam enables optimal positioning.



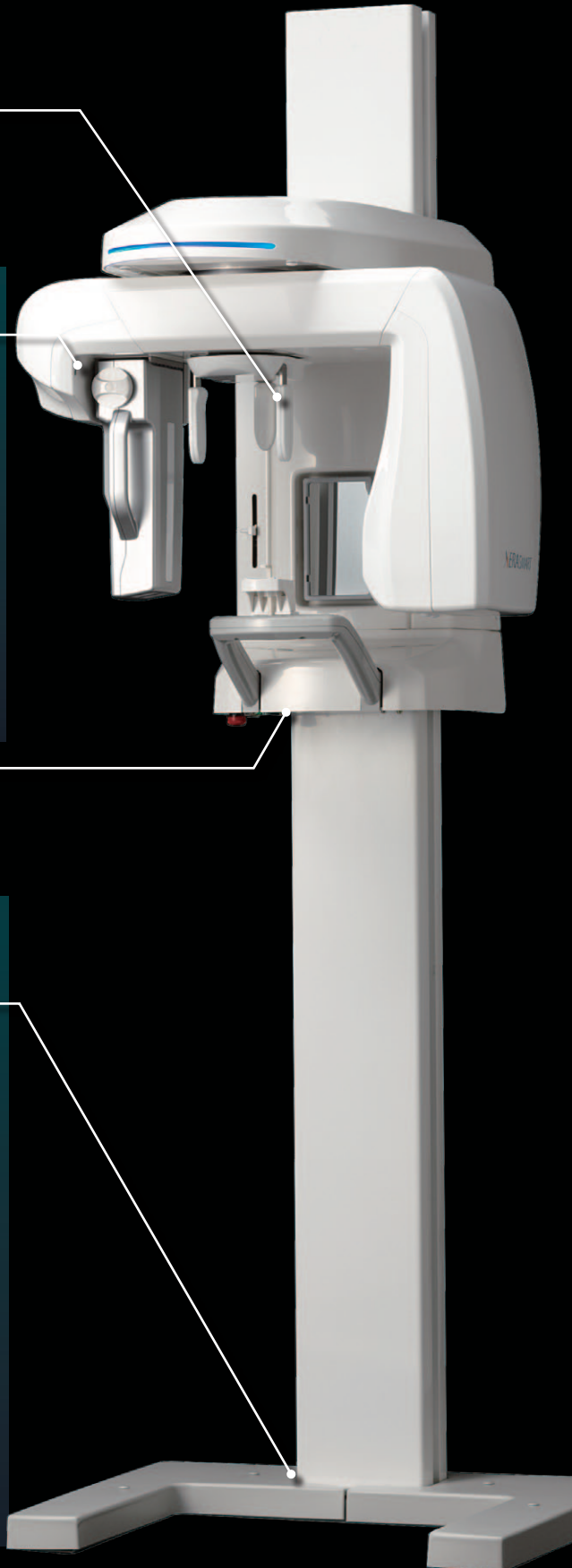
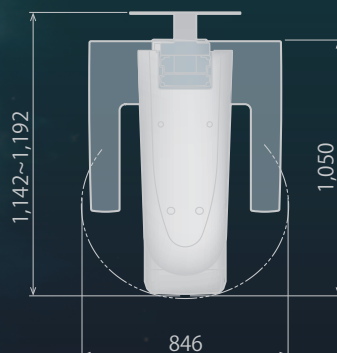
Elevation range of 800mm

The chinrest height is adjustable in 800mm range to adapt to all types of patients, from a child to adult, and patient on the wheel chair.

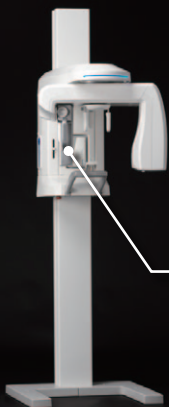


Space efficiency and compact design

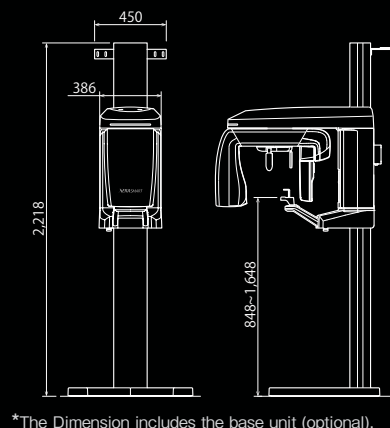
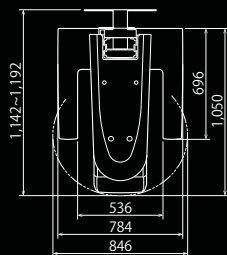
Assisting position can be either right or left side depending on the space availability and room arrangement. It enables the efficient use of the limited space of X-ray room.



〈 X-era Smart 〉



●Measurements

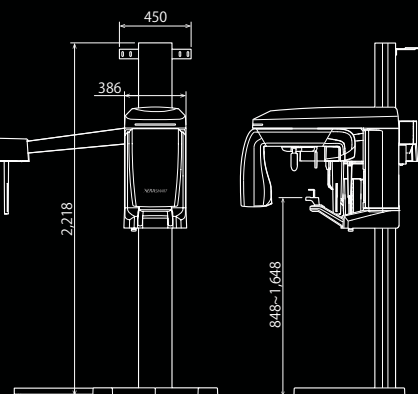
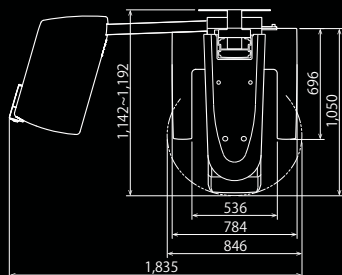


*The Dimension includes the base unit (optional).

〈 X-era Smart Cephalometric 〉



●Measurements



*The Dimension includes the base unit (optional).

●Technical data

X-era Smart

Sensor	Direct CMOS sensor
Grading	16bit (65,536 grading)
Exposure time	8, 14, 16 sec. (Panoramic)
	4 sec. × 2 (TMJ)
	8.0, 10.0 sec. (Cephalometric/carpus)
Nominal	1.2 ~ 1.29 (Panoramic, TMJ)
Magnification	1.1 (Cephalometric/carpus)

Pixel	100 μ m isotropic/pixel
	1,350 × 3,150 pixel (Panoramic)
	2,266 × 2,039 pixel (Cephalometric PA/carpus)
	2,266 × 2,548 pixel (Cephalometric LA)
Weight	125 ~ 160 Kg (Panoramic type)
	165 ~ 200 kg (Cephalometric type)

Type of X-ray generation	MIR-100
Tube voltage	58 ~ 82 kV
Tube current	2.0 ~ 10 mA
Power supply	AC100V 50/60 Hz
Input	1.5 kVA
Total filtration	2.5 mm Aluminum

The product specifications vary depending on the area of purchase. Please contact our international business division for more information.

CONTACT

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FM 554640/ISO 9001 : 2008