



Veraviewepocs 2D – High Speed Panoramic X-Ray  
Crystal Clear Images with Reduced Radiation

 J.MORITA MFG.CORP.

Thinking ahead. Focused on life.

  
MORITA



Thinking ahead.





Focused on life.



## High Speed Digital Panoramic/Cephalometric 7.4 Seconds for Panoramic, 4.9 Seconds for Cephalometric

**Our new cutting edge technology features extremely high quality images with low X-radiation.**

**The Veraviewepocs 2D features a variety of specialized programs, such as the Orthoradial Panoramic projection, which reduces the overlapping of neighboring teeth, and the Shadow Reduction Panoramic projection, which reduces obstructing shadows, as well as our AF function for easy, accurate patient positioning.**

**High definition, refined imaging processing offers multi-plane observation – enabling accurate diagnosis and analysis.**

**Veraviewepocs 2D is also completely upgradeable to our Veraviewepocs 3D model.**

### Highlights at a Glance

#### Digital Panoramic

- Fine high speed, exposure time 7.4 seconds, 1/4 X-radiation\*
- High quality images using both Digital Direct Automatic Exposure (DDAE) and Automatic Image Enhancer (AIE)
- High resolution images even in Fine High Speed Mode
- Easy patient positioning with AF automatic positioning, triple laser beams, and power assisted movement
- No film or film development necessary

#### Digital Cephalometric

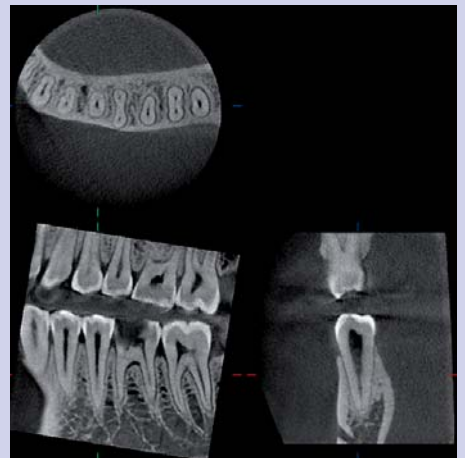
- High speed, exposure time approx. 4.9 seconds, 1/10 X-radiation\*
- More diagnostic information – greater dynamic range
- Imaging process can be completed within 20 seconds
- Fully automatic irradiation settings for easy operation
- No film or film development necessary

\* This comparison is made with the Veraviewepocs film-based system





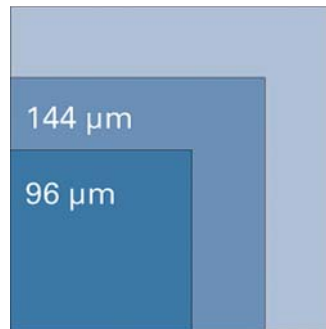
High quality images with less X-ray dosage  
Veraviewepocs 3D Upgradeable



3D image available only with  
Veraviewepocs 3D.

# Super High Quality Digital Panoramic Images

**Super High Quality Image –**  
The Veraviewepocs has high resolution even in Fine High Speed Mode. The resulting image has high resolution, with superb density and contrast. Digital Direct AE (automatic exposure) and Automatic Image Enhancer always obtains the optimal image.



*Fine High Speed Mode: pixel size 144 μm*  
*Super Fine Mode: pixel size 96 μm*

## High Resolution

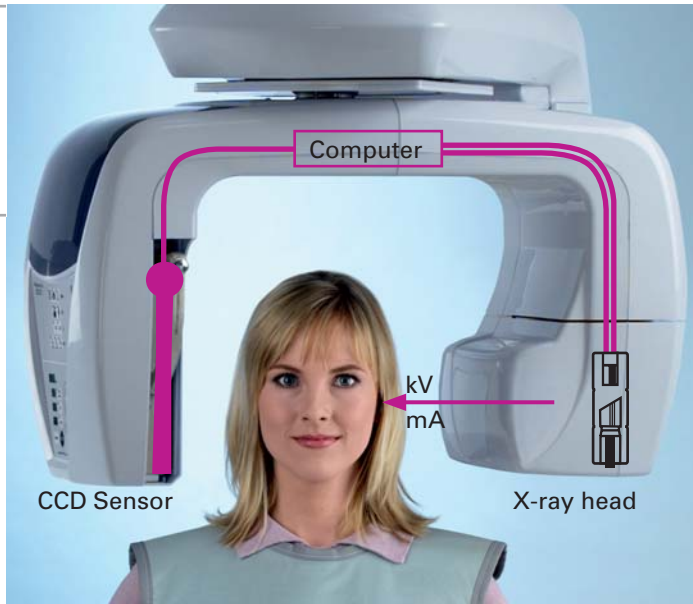
**Fine High Speed Mode:**  
Pixel size is reduced to 25% compared with the former model, so it produces superior images of a higher resolution.

**Super Fine Mode:**  
Produces an even better image with increased resolution.



## Pan Cassette

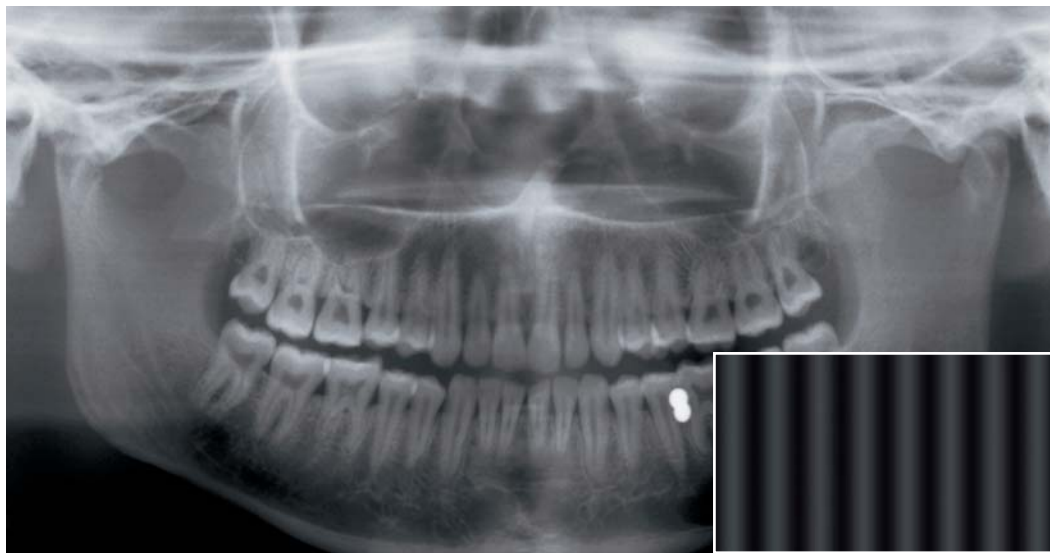
The high resolution CCD sensor (32-bit microprocessor) produces high quality digital panoramic images.



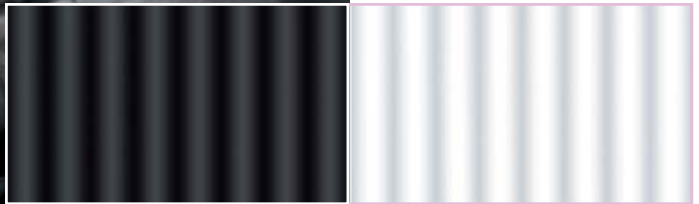
**Digital Direct Automatic Exposure (DDAE)**

DDAE controls the X-ray tube voltage (kV) and current (mA) simultaneously by detecting X-rays passing through the patient. This improves the dynamic range, and, along with Automatic Exposure (AE), results in exceptionally clear images with the best possible contrast and even density. The automatic exposure level can be adjusted to meet your individual requirements.

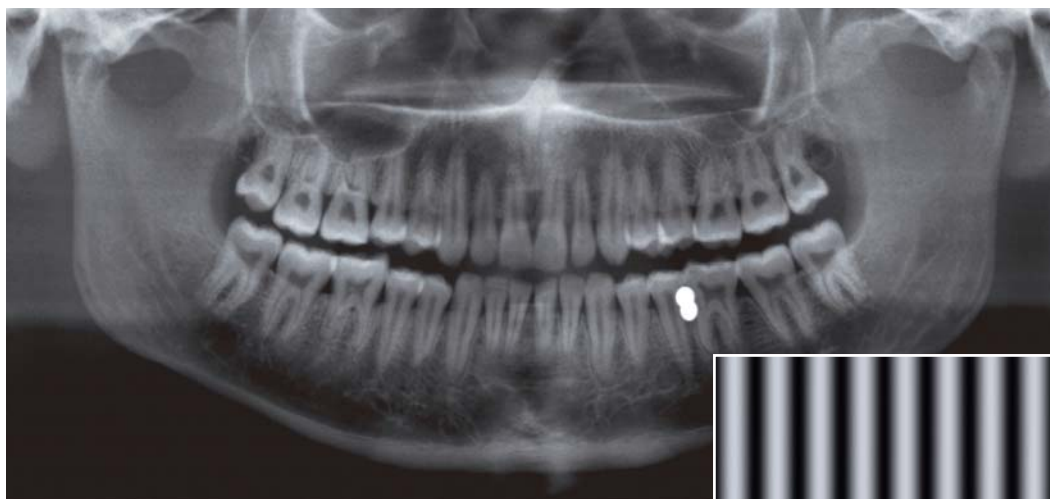
*There is no need to set the tube voltage and current. Digital Direct AE guarantees the optimum tube voltage (60 to 80kV) and current (1 to 10 mA). (Voltage and current may also be set manually.)*



**Conventional Image**

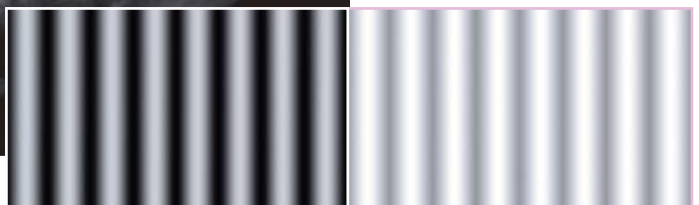


*Automatic Image Enhancer comparison*



**Automatic Image Enhancer (AIE)**

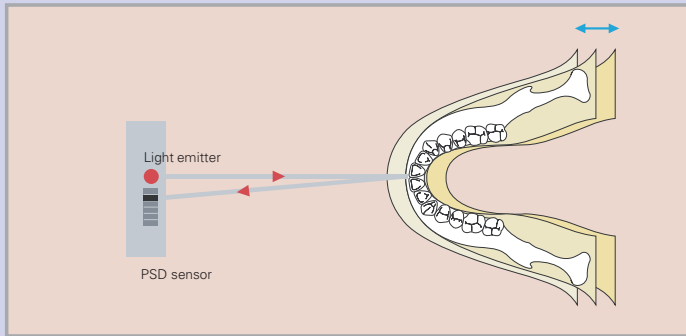
Automatic Image Enhancer enhances the details that can be observed in areas which are either extremely white or extremely black. DDAE and AIE perform a logarithmic conversion to produce the highest quality image possible.



# Easy Positioning for Panoramic Images

## AF, Power-Assisted Movement and 3 Laser Beams

Easy, optimal patient positioning made possible with innovative technology.



### AF Automatic Positioning

The Light beam sensor automatically positions the C-arm without the patient having to move. It then measures the distance to the patient's anterior teeth and AF automatically moves the C-arm into the optimum position. This creates images with a high degree of reproducibility.

*The semiconductor position detector (PSD sensor) measures distance with an extreme accuracy of 0.2 mm for high reproducibility. AF makes positioning easy and precise.*



### Power-Assisted Movement: C-arm is Lined Up to the Patient

The electric motor of Veraviewepocs 2D enables convenient lift movement for smooth slow-starts and slow-stops. It is equipped with an automatic overload stop function for safety. In addition, the C-arm is lined up to the patient for easier patient positioning. Since the arm moves back and forth to line up with the patient, the patient does not have to move and can maintain a comfortable posture.



### 3 Laser Beams for Accurate Positioning

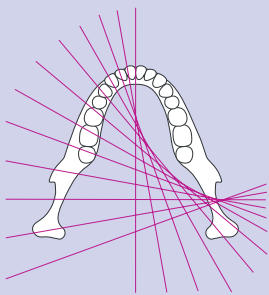
The patient's position is checked with the triple laser beams: the frankfurt plane beam, the sagittal plane beam, and the image layer beam for accurate positioning. The carbon temple stabilizing rods absorb almost no X-radiation and reduce the shadow of the rods in the image. The chin rest can be set at three different heights.



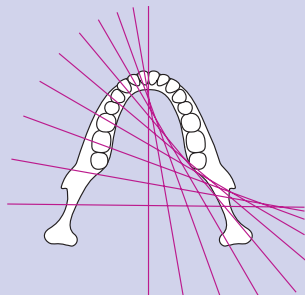
# Consistent Magnification throughout the image: Versatile Projections; Wheelchair Support

**Multi-projections fit a variety of purposes.**

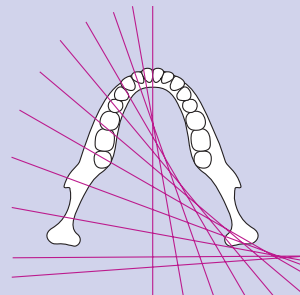
**Consistent magnification is maintained throughout the image.**



*Standard Panoramic*



*Orthoradial Panoramic*



*Shadow Reduction Panoramic*

**The Veraviewepocs 2D has various projections.**

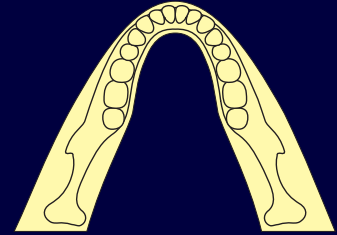
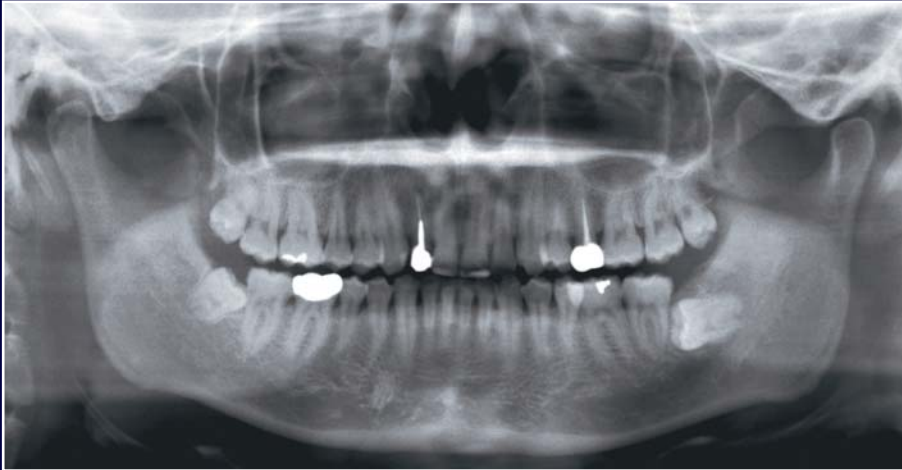
Distance from the X-ray tube to the patient is consistent, providing uniform magnification. In this way the overlapping of neighboring teeth or the shadow on the mandibular ramus is reduced, providing optimal results for jaw exposures.



## **Wheelchair Support**

The Veraviewepocs 2D offers a width of up to 480 mm to accommodate patients in wheelchairs. For patients with a wheelchair span greater than 480 mm, there is an optional wall-mounted version available.

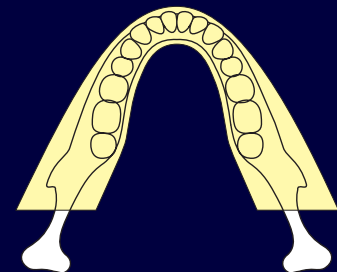
## Multi-Mode, Versatile Design



Clear, sharp images with a wide image-layer

**Standard Panoramic**, Mag.: 1.3 x constant

The thick/specially-designed image layer accommodates all the possible variations of dental arch shapes and sizes to produce extremely clear and sharp images

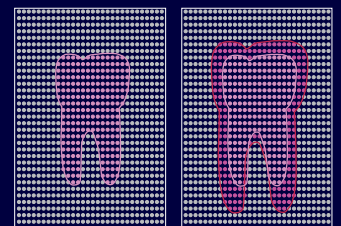


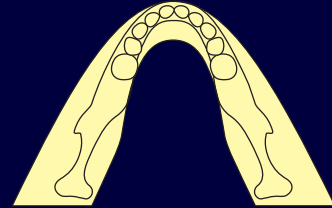
Images with greater detail

**Standard Panoramic**, Mag.: 1.6 x constant

The X-ray image is enlarged by a factor of 1.6 – the best prerequisite for an even better diagnosis!

The enlarged exposure does not simply magnify the standard exposure; it actually provides greater detail because the distance between the patient and the X-ray tube is reduced.

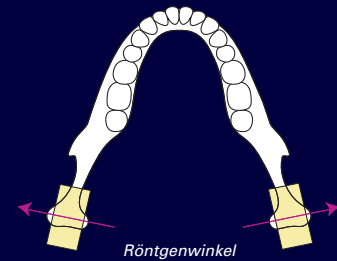
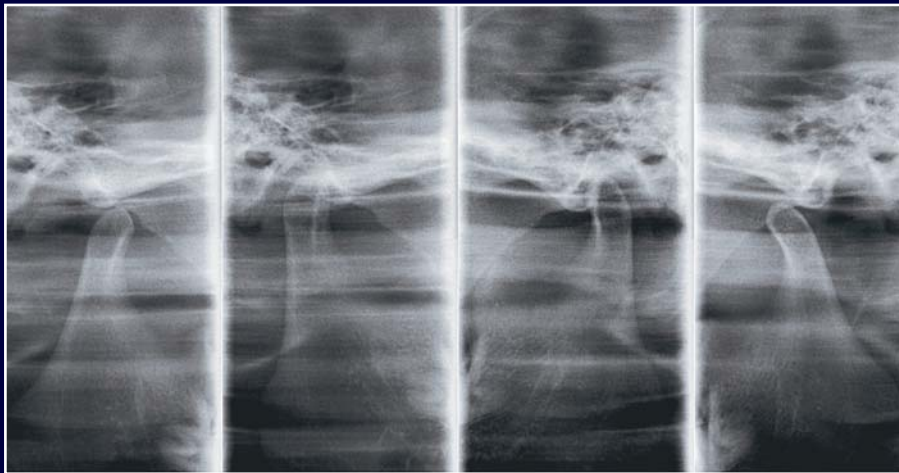




Reduced X-radiation

**Pedodontic Panoramic**, Mag.: 1.3 x constant (Mag.: 1.6 x is also available)

For children or people with small jaws. The arm's rotation range is reduced, and thus lessens the X-radiation.



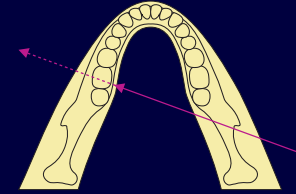
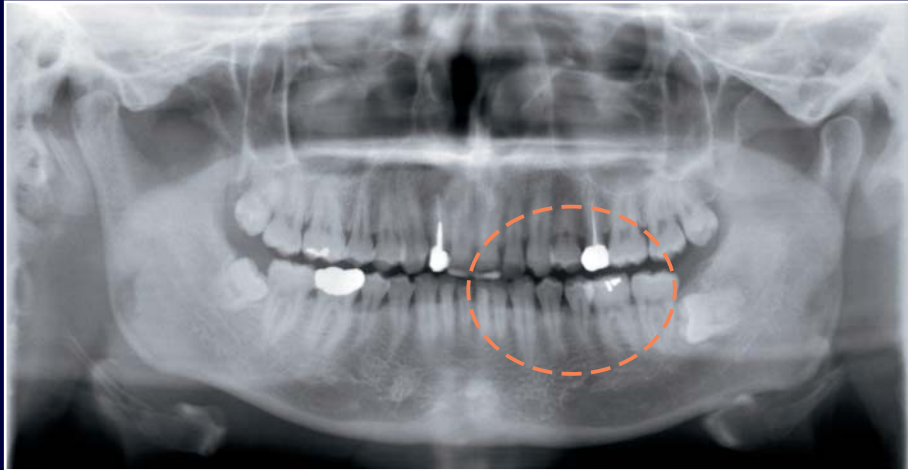
X-ray penetration angle aligned with longitudinal axis of the TMJ condyle

**TMJ 4 Views**, Mag.: 1.3 x constant

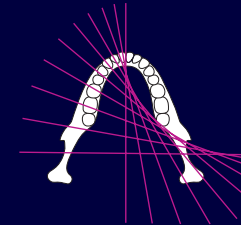
Sharp, clear images of the TMJ are produced by aligning the angle of X-ray penetration with the longitudinal axis of the mandibular condyle head.



# The various X-ray projection angles use the same image layer to suit your diagnostic purpose



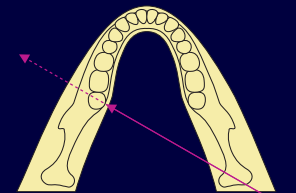
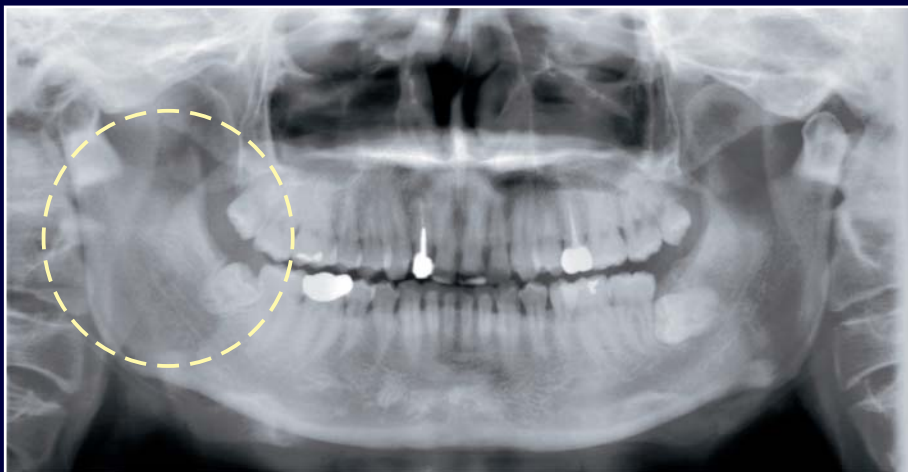
*X-ray projection angle*



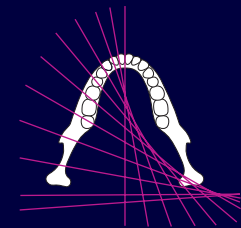
Images with less overlapping of teeth

**Orthoradial Panoramic**, Mag.:1.3 x constant (Mag.: 1.6 x is also available)

The perpendicular projection of the X-ray reduces the amount of overlapping with emphasis on the maxillar bicuspid region.



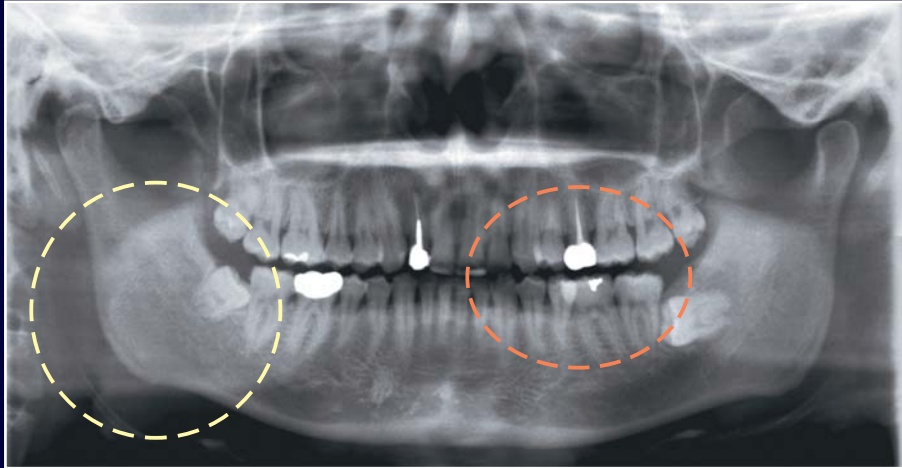
*X-ray penetration angle*



**Shadow Reduction Panoramic**, Mag.:1.3 x constant (Mag.: 1.6 x is also available)

Produces images with less mandibular ramus shadow.

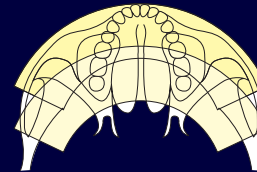
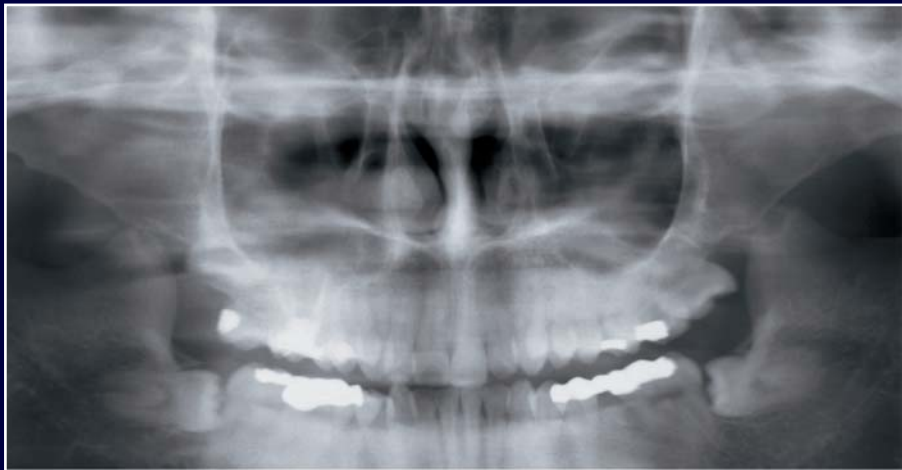
**Special panoramic images are made by changing the X-ray projection angle, not by changing the image layer orbit. In this way the overlapping of neighboring teeth or the shadow on the mandibular ramus is reduced. These images are good for diagnosis of dento-maxillo facial areas.**



Orthoradial Panoramic, Shadow reduction panoramic, and standard panoramic are taken for the same patient. Please compare.

**Standard Panoramic**, Mag.: 1.3 x constant

- Orthoradial panoramic for better observation of interproximal spaces
- Shadow reduction panoramic for better observation of jaw



Clear Images of the Maxillary Sinus Region

**Maxillary Sinus Panoramic, anterior (posterior is also available)** Mag.: 1.5 x constant Produces panoramic images of either the anterior or posterior maxillary sinus region.





# Superfast, Gentle and Economical Digital CCD Cephalometric

**The Veraviewepocs System offers high speed performance requiring only 4.9 seconds for a cephalometric scan. The speed helps ensure high quality images each and every time. For pediatric patients, the reduced scan time is especially helpful as repeat images due to patient movement is virtually eliminated.**

## **That's gentle to all concerned: only 1/10\* X-radiation level**

With only a tenth of the X-ray radiation, the radiation exposure is reduced very significantly compared with conventional X-ray.

## **High quality image with wide dynamic range**

You obtain far more information about hard and soft tissue – with just a single acquisition.

## **Fine High Speed CCD digital cephalometric**

Fastest scanning time: 4.9 seconds

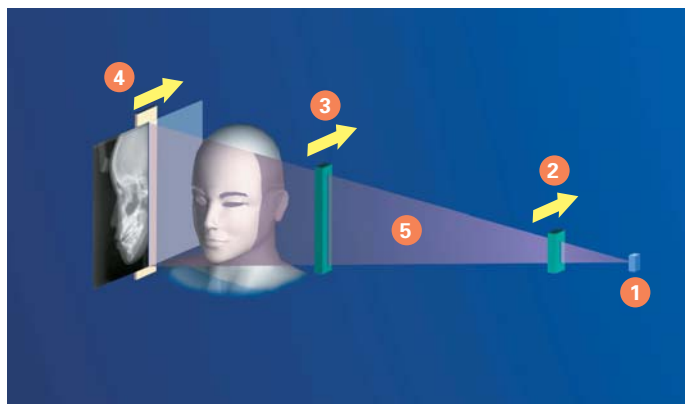
## **The variable image processing technique generated optimum gray-scale**

**Imaging process can be completed within 20 seconds**



## **A single digital cassette for panoramic and cephalometric**

A brand-new development: our special high-resolution CCD sensor with a height of 225 mm now makes digital cephalometric possible! Simply insert the new digital cassette and remove it again. One cassette can be used for both digital panoramic and digital cephalometric imaging.



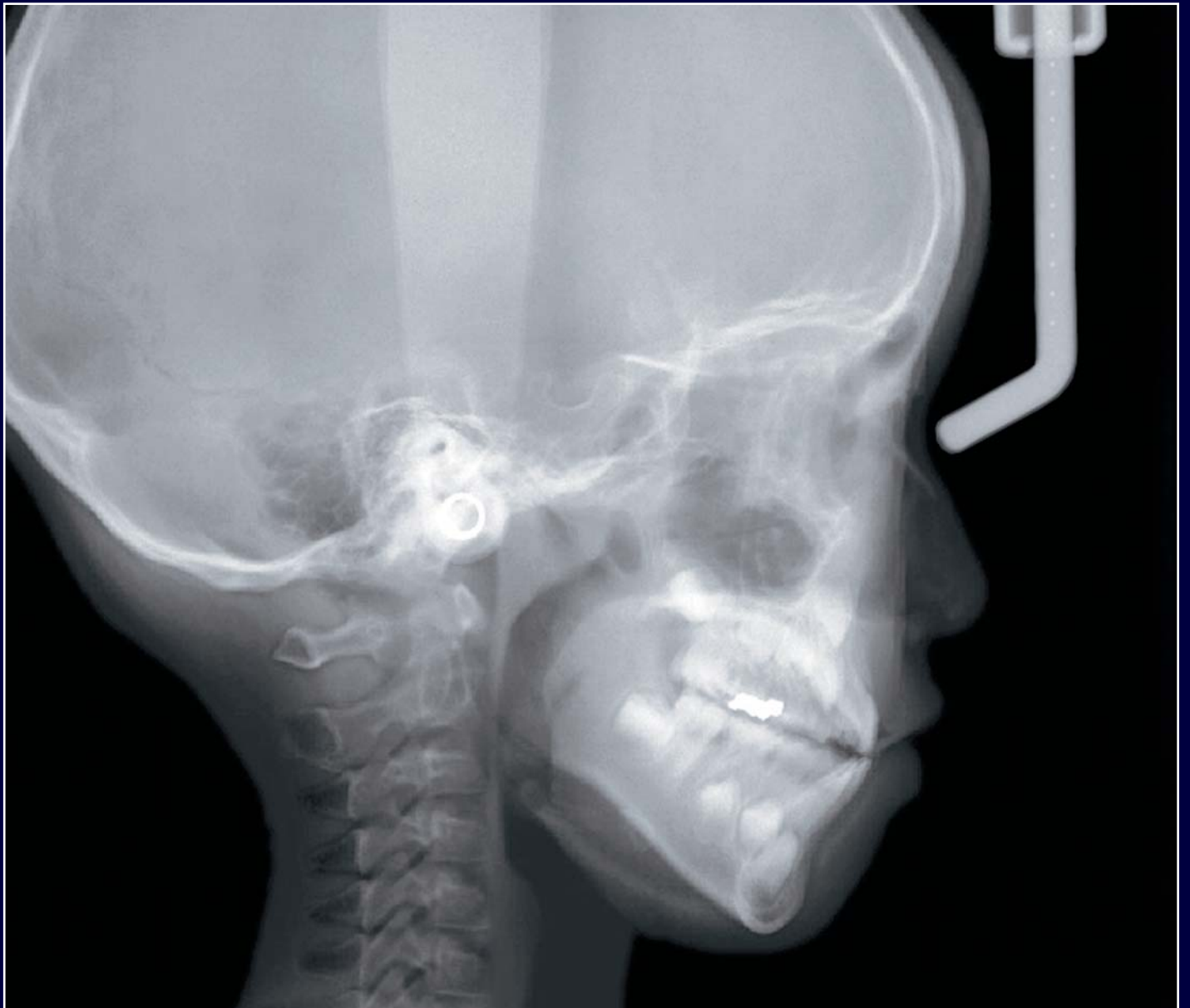
## **Variable image processing capabilities**

The variable image processing technique generated optimum grayscale values – by offering different cassette running speeds for hard and soft tissue.

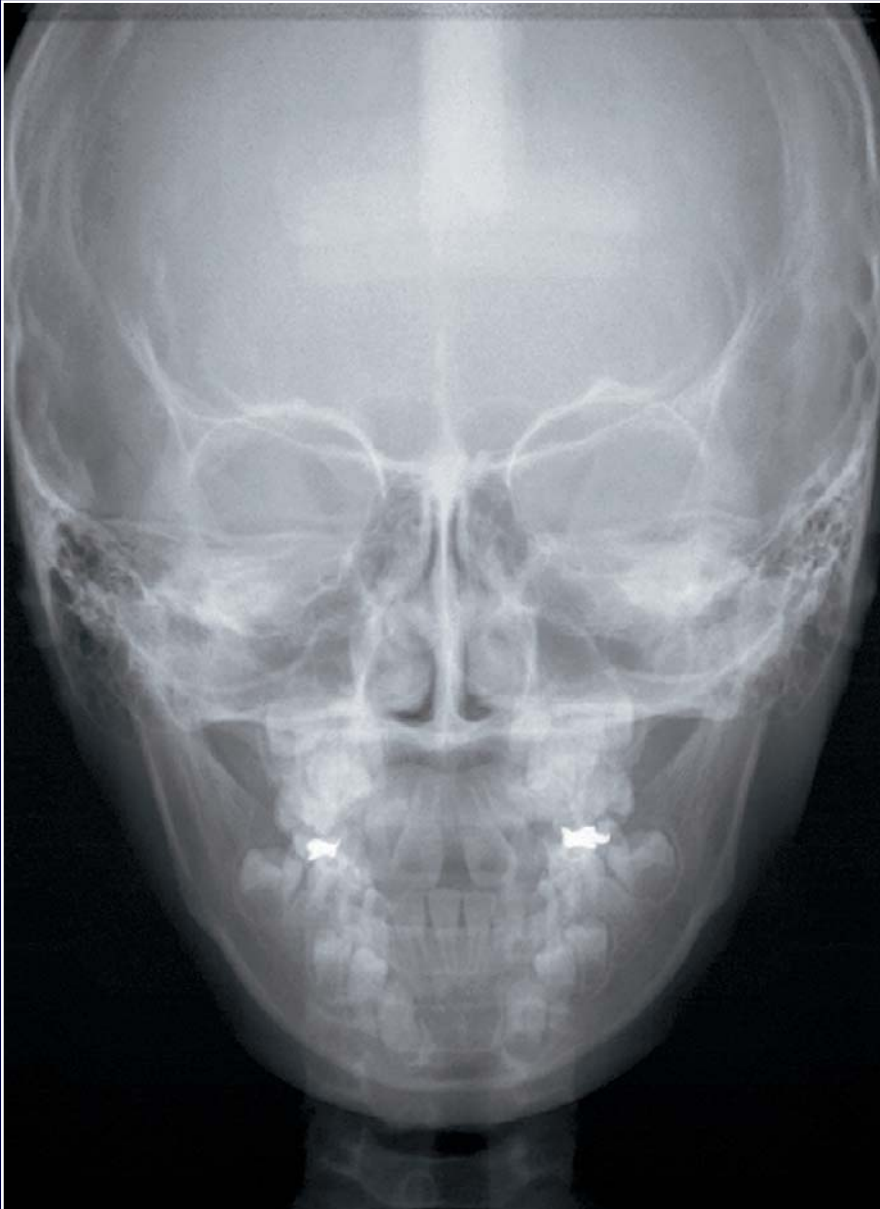
- 1 Focal spot of X-ray tube
- 2 Primary slit
- 3 Secondary slit
- 4 CCD cassette
- 5 X-ray beam

\* This comparison is made with the Veraviewepocs film-based system

The variable image processing technique generated optimum gray-scale



**Posterior-anterior projection**



*With the variable speed image processing technique, the entire exposure time is only 4.1 seconds!  
Without the variable speed image processing mode, the processing time is 5.0 seconds.*



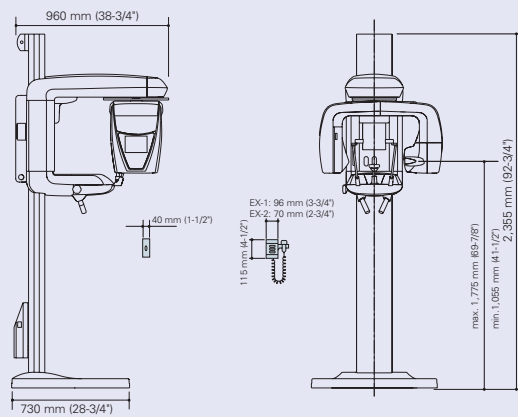
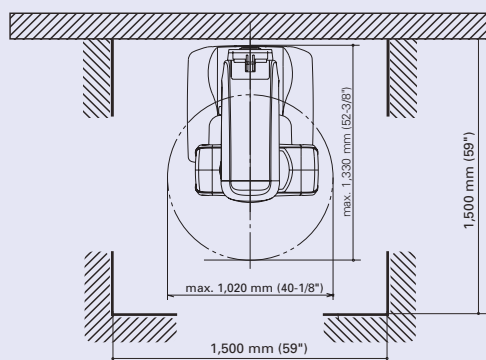


Veraviewepocs  
2D

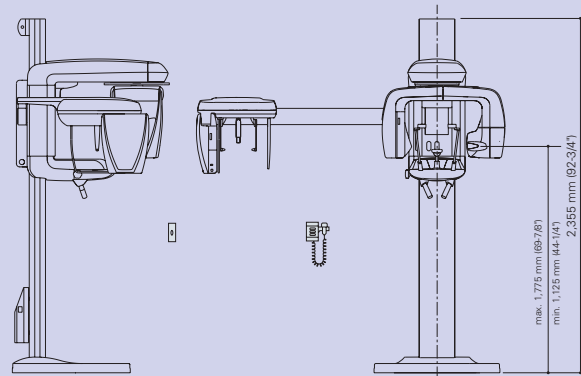
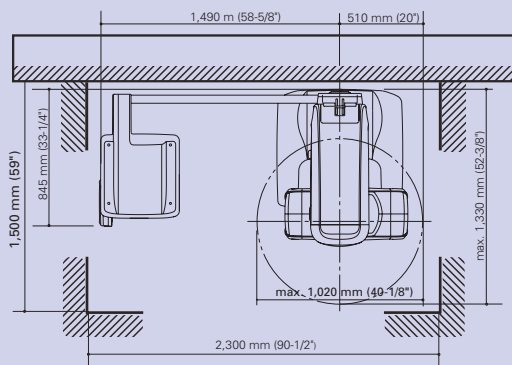
## Specifications/Dimensions

### Machine Dimensions & Suggested Operating Space Requirements

Veraviewepocs 2D  
Panoramic





Veraviewepocs 2D  
Panoramic Cephalometric



\* The Veraviewepocs 2D should be anchored to a concrete floor and/or wall. The upgraded Veraviewepocs 3D should be anchored to a concrete wall and floor. Ask the nearest Morita office or dealer for more details.



## Verviewepocs 2D – Technical Specifications

	Panoramic	Panoramic/Cephalometric
		
<b>Trade name</b>	Verviewepocs 2D	
<b>Model</b>	X550	
<b>Type</b>	2DA	2DB
<b>Cassette</b>	Pan	Pan/Ceph
<b>Input voltage</b>	EX-1: AC 120V 60 Hz, EX-2: 220/230/240 V 50/60 Hz	
<b>Power consumption</b>	2.0 kVA	
<b>X-ray generator</b>		
Tube voltage	60–80 kV	
Tube current	1–10 mA	
Effective focal spot	0.5 mm	
<b>Panoramic</b>		
Exposure time	Fine high-speed mode approx. 7.4 seconds, Super fine mode approx. 15 seconds	
Magnification ratio	1.3, 1.5, 1.6	
Positioning	Electric motor and AF optical distance sensor	
<b>Cephalometric</b>		
Imaging area	—	LA 225 x 254 mm, PA 225 x 203 mm
Magnification ratio	—	1.1
<b>Dimensions</b>		
Main unit	W 1,020 x D 1,330 x H 2,355 mm (W 40-1/8" x D 52-3/8" x H 92-3/4")	W 2,000 x D 1,330 x H 2,355 mm (W 78-3/4" x D 52-3/8" x H 92-3/4")
Control box	EX-1: W 96 x D 40 x H 115 mm (W 3-3/4" x D 1-1/2" x H 4-1/2") EX-2: W 70 x D 40 x H 115 mm (W 2-3/4" x D 1-1/2" x H 4-1/2")	
<b>Installation area</b>	1.35 m <sup>2</sup> ( 14.53 ft <sup>2</sup> )	2.60 m <sup>2</sup> (27.99 ft <sup>2</sup> )
<b>Weight</b>	Approx. 190 kg (418 lb.)	Approx. 258 kg (568 lb.)

## Imaging Program

Magnification ratio			
Standard Panoramic	Standard, orthoradial, and shadow reduction	1.3 constant	1.6 constant
Pedodontic Panoramic	Standard, orthoradial, and shadow reduction	1.3 constant	1.6 constant
Maxillary Sinus Panoramic	Anterior and posterior		1.5 constant
TMJ 4 views	Left and right sides	1.3 constant	

## Upgrade to Verviewepocs 3D

2D series		+	3D series					
Type	Image		Cassette	Image				
	Pan.			Ceph.	Ø40xH40	Ø40xH80	Ø80xH80	Panoramic Scout
2DA	X			X	X		X	
2DB	X	X						
2DC	X			X		X		

\* Clinical images are provided by Kitasenju Radist Dental Clinic, i-View Imaging Center, Japan, and the department of dentomaxillofacial radiology at University of Leipzig, Germany.

\* X-ray protection should be provided for the patient when ever X-rays are emitted.

\* Design and specifications are subject to change without notification.

\* Verviewepocs 2D is fully upgradeable to the Verviewepocs 3D.

\* Cassettes for the 3D upgrade are available in either 40x40 and/or 80x80.

\* Additional cassette, component replacement, calibration, etc. are necessary for the 3D upgrade.

\* Please refer to the Verviewepocs 3D brochure for more details.

## Thinking ahead. Focused on life.

In 1916, Junichi Morita started to import products of the leading dental equipment manufacturers into Japan, where demands for modern dentistry were growing.

His venturesome attempts of supplying selected products for oral healthcare has grown steadily by receiving valuable support and guidance from the dental profession. His enterprising spirit lives through the decades, and all Morita Group Companies join in continuing to pursue marketing, distribution and services, as well as R&D and manufacturing, in collaboration with world leaders in healthcare products and research organizations.

Diagnostic/Imaging Equipment

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Instruments

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Auxiliaries

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