The history of Diagnostic imaging equipment of YOSHIDA
Ever since X-ray imaging equipment “ACMEX” in 1960, we have developed and manufactured the cutting edge equipment that is trusted by doctors.

Technical data
Panoramic
- Sensor: Direct CMOS Sensor
- Grading: 16 bit (65,536 grading)
- Exposure time: 7 sec. (Panoramic) / 1.7 sec. × 4 (TMJ)
- Magnification factor: 1.3 - 1.4 (Panoramic exposure, TMJ exposure)
- Pixel: 100 μm/isotropic/pixel
- Tube voltage: 70 - 90kV
- Tube current: 2.0 - 4.0 mA
- Power supply: AC100-120V±10%, AC220V-240V±10%
- Total filtration: 2.5 mm Aluminum

Cephalometric
- Sensor: Direct CMOS Sensor
- Exposure time: 8 sec./12 sec. (PA), 10 sec./15 sec. (LA), 8 sec./12 sec. (Carpus)
- Magnification factor: 1.1
- Pixel: 2605 pixels × 2266 pixels (LA), 2097 pixels × 2266 pixels (PA/Carpus)

3D
- Exposure size
- Voxel size

Panoura X·ERA
Panoramic and CBCT Imaging System

Dimensions

Quality Control
We are committed to quality control on a daily basis to provide products and services trusted by customers in the global market. In addition to compliance with the Japanese Pharmaceutical Affairs Law, the headquarters and Tokyo Factory have obtained ISO 13485 and ISO 9001 certification in an effort to systematically manage the quality control system. All employees strive to meet the standards of ISO which expects us to achieve defect rate close to zero as well as creating a mechanism to minimize waste. Even if deficiencies are found, our quality control system has a mechanism to connect them with the improvements to ensure the continuous quality improvement.

THE YOSHIDA DENTAL MFG. CO., LTD.
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First Edition
The X-era produces an uncompromised high-quality image providing the fine details. It also enhances workflow by minimizing the time spent on image enhancement by the software.
The X-era produces an uncompromised high-quality image providing fine detail. It also enhances workflow by minimizing the time spent on image the image-capture process.

**2D**

High image quality with confidence
Super high-definition clinical image quality for accurate diagnosis

A Direct CMOS sensor and one-of-a-kind image construction technology creates blur-free and sharp images.

The sensor constructs the finest details of more than 4,500 single high-resolution snapshots to provide extra crisp high-definition images. (16 bit 65,536 gray shades)

Multi Focal Layer Technology enables optimal focus

Even after taking pictures, you can reconstruct images matching the patient’s dentition size and shape, thus reducing the risk of re-take.

Selectable Cephalometric sensor type

Cephalometric (Type 1) Switchable between Cephalometric and Panoramic sensor

Cephalometric (Type 2) Fixed type sensor for cephalometric and panoramic

Enhanced efficiency

It is possible to transfer even a single clipped image to your viewer software.

The 14-image method can also be used for clipping.
Super high-definition clinical image quality for accurate diagnosis

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**Multi Focal Layer Technology enables optimal focus**

Even after taking pictures, you can reconstruct images matching the patient’s dentition size and shape, thus reducing the risk of re-take.

**Selective Cephalometric sensor type**

- **Cephalometric (Type 1)**
  - Switchable between Cephalometric and Panoramic sensor
  - Lower Cost

- **Cephalometric (Type 2)**
  - Fixed type sensor for cephalometric and panoramic
  - Enhanced Efficiency

Multi-layer dental clipping

It is possible to transfer even a single clipped image to your viewer software.

2D exposure mode

- **Cephalometric exposure mode**
  - *< Lateral view>*
  - *< PA view>*
  - *< Carpus view>*

- **Panoramic exposure mode**
  - *< Standard panoramic>*
  - *< TMJ 4 views>*
  - *< TMJ 2 views>*
  - *< Child panoramic>*

*Image is for your reference only*
Capturing high resolution 3D volumes have never been easier on the doctor and the patient. With industry-leading image quality in combination with intuitive software, fast scanning and universal integration, the X-era makes 3D imaging accessible for every dental professional.

**High definition 2D / 3D image requires focus**

By incorporating one of the smallest focal sizes in the industry of 0.2 mm, the X-era creates ultra high-definition images with less blurring.

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**Flexible for all dental clinical needs**

<table>
<thead>
<tr>
<th>Endodontic, Impacted tooth extraction</th>
<th>FOV Dimensions</th>
<th>185</th>
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<tbody>
<tr>
<td></td>
<td>Ø44mm x 44mm (61mm)</td>
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<tr>
<th>Perio Implant</th>
<th>FOV Dimensions</th>
<th>185</th>
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<tbody>
<tr>
<td></td>
<td>Ø35mm x 54mm (59mm)</td>
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<tr>
<th>Maxillary sinus observation, Implant</th>
<th>FOV Dimensions</th>
<th>185</th>
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<tbody>
<tr>
<td></td>
<td>Ø20mm x 72mm (72mm)</td>
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<tr>
<th>Both side Impacted tooth observation, Full mouth implant</th>
<th>FOV Dimensions</th>
<th>185</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Ø110mm x 79mm (99mm)</td>
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<tr>
<th>TMJ full mouth observation, Respiratory tact observation</th>
<th>FOV Dimensions</th>
<th>185</th>
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<tr>
<td></td>
<td>Ø154mm x 76mm (65mm)</td>
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3D all doctor can benefit

By making full use of all the mechanisms it was made possible to acquire high-definition 3D images. In addition, the burden on patients is reduced by shortening the scan time so 3D has become easier to incorporate into daily practice.

High definition 2D / 3D image requires focus

By incorporating one of the smallest focal sizes in the industry of 0.2 mm, the X-era creates ultra high-definition images with less blurring.

0.2 mm X-ray tube focal spot

Comparison between two different focal spots scanned under the same conditions

Flexible for all dental clinical needs

Endodontic, Impacted tooth extraction
φ44mm×64mm(61mm)

Maxillary sinus, Implant
φ80mm×79mm(72mm)

Full mouth implant
φ110mm×70mm(69mm)

TMJ full mouth, Respiratory tract
φ156mm×78mm(65mm)

FOV Dimensions φ×H/11mm
Clinical Example
Scan modes that support every clinical need

Endo
Three-dimensional diagnosis is made possible so a case can be examined from all directions.

Perio
Three-dimensional examination enables accurate diagnosis for areas that are hard to confirm in 2D. In addition, bone absorption can be better explained to the patient in three dimensions leading to greater case acceptance.

Extraction (Horizontally Impacted Wisdom Tooth)
The relative position between the mandibular canal and the root apex can now easily be visualized in three dimensions. Creating the surgical plan is now dramatically more efficient and more effective.

Design philosophy
Designs and functions that are originally developed by YOSHIDA are sure to make the scan of the image optimal for desired purposes as easy as possible. It helps reduce the burden on doctors and patients.

Face-to-face positioning
The angle of the arm is designed to be 55 degrees as the most suitable for patient’s entry and positioning. Introduction of wheel chair patient is also possible. Switching between Panoramic and 3D exposure is easily made by changing only bite blocks.

Swing sensor technology
Conventional scanning type
The X-ray tube stays in one position therefore, the intensity of the X-ray received by the sensor changes.

New Swing technology
Since the X-ray tube swings according to the sensor, the intensity of X rays is uniform.

Compact design to fit in smaller X-ray room.

Easy patient positioning.

Cephalometric
Panoramic
**Clinical Example**

Scan modes that support every clinical need

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**Endo**

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**Extraction (Horizontally Impacted Wisdom Tooth)**

The relative position between the mandibular canal and the root apex can now easily be visualized in three dimensions. Creating the surgical plan is now dramatically more efficient and more effective.

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**Design philosophy**

A design that not only creates a clinically invaluable image, but also makes the capture process easy on the doctor and the patient.

**Face-to-face positioning**

The angle of the arm is designed to be 55 degrees, which is optimal for patient’s entry and positioning. Patients in wheelchairs can also be scanned. Switching between Panoramic and 3D exposure is also very easy.

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**360° CT scan in just 12 seconds—with our largest FOV**

Even with X-era’s largest FOV size (Φ 156 mm × 79 mm), a full 360-degree 3D scan takes as little as 12 seconds. High-speed scans reduce the risk of patient movement, thus minimizing motion artifacts in the image.
ONESYSTEM Imaging
Viewer software offers intuitive operation for your daily practice, from scanning to the patient consultation.

Scan
Quick and intuitive operation to select scan mode

View
For viewing and manipulating images

Edit
Stress-free operation

Viewing of panoramic, intraoral and camera images are possible in one screen or images can easily be integrated into most major dental imaging platforms.

With the click of a mouse, easily retrieve 3D volumes or plans created with those volumes.

Comparing between pre/post-operative condition is possible by displaying all images on the screen.

3D cross-section
3D cross-sections allow a view of any desired sliced plane. With a simple, yet powerful interface, any location can quickly be viewed from any axis to gain information that cannot be generated from a 2D modality.

Multiview
Comparing between pre/post-operative condition is possible by displaying all images on the screen.

3D Movie
3D Movie creates compelling presentation material to share with colleagues or patients. Bring your treatment plan to life in a way that static volumes can’t!
ONSYSTEM Imaging

Viewer software offers intuitive operation for your daily practice, from scanning to the patient consultation.

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### Viewing of panoramic, intraoral and camera images are possible in one screen or images can easily be integrated into most major dental imaging platforms.

With the click of a mouse, easily retrieve 3D volumes or plans created with those volumes.
To install, the equipment needs to be wall-mounted.

**Technical data**

**Panoramic**
- **Sensor**: Direct CMOS Sensor
- **Grading**: 16 bit (65,536 grading)
- **Exposure time**: 7, 12 sec. (Panoramic)
- **Exposure time**: 1.7 sec. × 4 (TMJ)
- **Magnification factor**: 1.3 - 1.4 (Panoramic exposure, TMJ exposure)
- **Pixel**: 100 μm isotropic/pixel
- **Resolution**: 1,510×3,341 pixel (Panoramic)

**Exposure size**
- **Exposure size**: 2605 pixel × 2266 pixel (LA)
- **Voxel size**: 2097 pixel × 2266 pixel (PA/Carpus)

**Cephalometric**
- **Sensor**: CMOS Sensor
- **Exposure size**: 2097 pixel × 2266 pixel (PA/Carpus)
- **Voxel size**: 2097 pixel × 2266 pixel (PA/Carpus)

**3D**
- **Sensor**: Direct CMOS Sensor
- **Exposure time**: 8 sec./12 sec. (PA), 10 sec./15 sec. (LA), 8 sec./12 sec. (Carpus)

**Common spec.**
- **Tube voltage**: 70 - 90kV
- **Tube current**: 2.0 - 4.0 mA
- **Power supply**: AC100-120V±10%, AC220V-240V±10%
- **Total filtration**: 2.5 mm Aluminum
- **Dimensions**
- **Exposure size**: 2097 pixel × 2266 pixel (PA/Carpus)
- **Voxel size**: 2097 pixel × 2266 pixel (PA/Carpus)

**Operating conditions**
- **Temperature**: 10 to 40°C (50 to 104°F)
- **Relative humidity**: 30 to 75% (no condensation)
- **Atmospheric pressure**: 700 to 1060 hPa

**We know that most dentists are also business owners who focus on getting the best value for their investment. Based in Elmsford, NY for over 30 years, ImageWorks has been manufacturing dental imaging solutions that provide great return on investment. This value stems not only from the quality of our products, but also the quality of our people.**

ImageWorks has been providing innovative dental imaging solutions for over 30 years. Our focus is helping dental practices maximize the return on their imaging assets.