

Combination Dental X-ray Imaging System

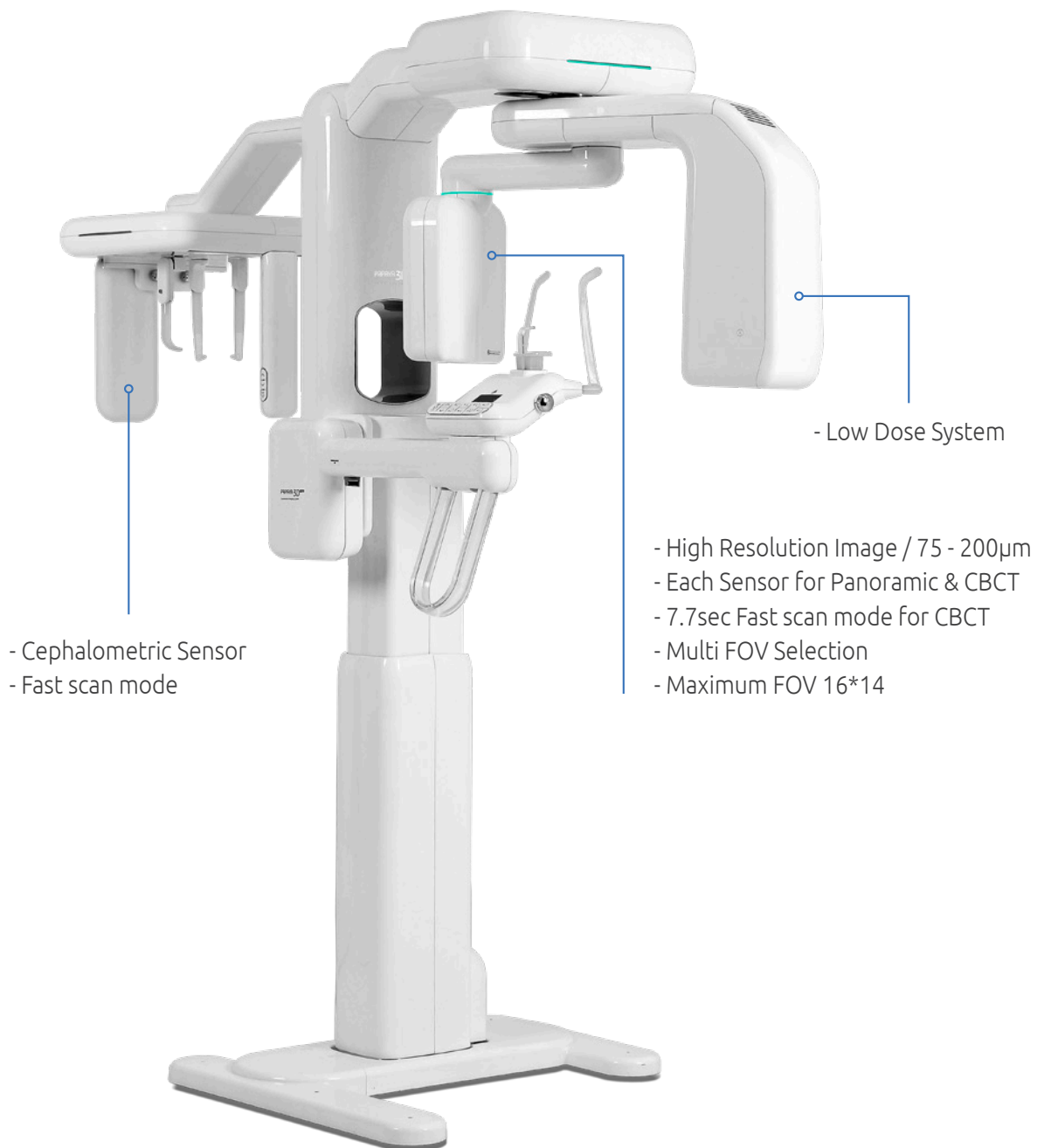
# PAPAYA 3D **PLUS**

Combination Dental X-ray Imaging System

# PAPAYA 3D PLUS

PAPAYA 3D Plus offers Multi FOV selections up to 16x14 for CBCT and exceptional images through self-developed CMOS detector, including Cephalometric system.

With high technology of CBCT system, it is able to provide 7.7 secs of fast scan mode reducing dose, motion artifacts and image distortion.



## 1. Digital Image Detector

### Digital CBCT Detector

Digital Image Detector (Manufacture)	DualRay-S
Detector Type (Material)	CsI / CMOS
Detector Size (mm)	167W x 150H x 38D
Active image area (mm)	130 x 128
Active Pixels (Image Matrix)	1,320 x 1,280 pixel
Pixel Pitch	100 $\mu$ m
Data bit	12bit for pixel
DQE (70kV,0lp/mm)	$\geq 0.7$
MTF (1lp/mm)	$\geq 0.5$

### Digital Panoramic Detector

Digital Image Detector (Manufacture)	Extor-P
Detector Type (Material)	CsI / CMOS
Detector Size (mm)	73W x 168H x 21.7D
Active image area (mm)	6.45 x 150
Active Pixels (Image Matrix)	86 x 2,020 pixel
Pixel Pitch	75 $\mu$ m
Data bit	12bit for pixel
DQE (70kV,0lp/mm)	$\geq 0.7$
MTF (1lp/mm)	$\geq 0.6$

## Digital Cephalometric Detector

Digital Image Detector (Manufacture)	Extor-C
Detector Type (Material)	CsI / CMOS
Detector Size (mm)	73W x 255H x 21.7D
Active image area (mm)	6.45 x 225
Active Pixels (Image Matrix)	86 x 3,030 pixel
Pixel Pitch	75µm
Data bit	12bit for pixel
DQE (70kV,0lp/mm)	≥ 0.7
MTF (1lp/mm)	≥ 0.6

## 2. X-Ray Generator

Type	High Frequency Generator (40 kHz)	
kV Range	60 - 90kV (1kV steps)	
mA Range	CBCT	4 - 12mA
	Panoramic	4 - 12mA
	Cephalometric	4 - 12mA
Max mA	CBCT	12mA
	Panoramic	12mA
	Cephalometric	12mA
Exposure Time	CBCT	Max 15sec
	Panoramic	Max 17sec
	Cephalometric	Max 15.5sec

### 3. X-Ray Tube

Tube Model	D-054SB
Anode Material / Type : Tungsten / Stationary Anode	
Tube Diameter	Max 58mm
Target Angle	5°
Focal Spot	0.5mm
Anode Heat Storage Capacity	35kJ
Anode Cooling rate	Max 250W
Inherent Filtration	0.8mmAl
Added Filtration	2.0mmAl

### 4. Exposure Mode

Patient Option	Big / Middle / Small / Child
2D   Exposure Resolution	Normal / Fast / HD / Ultra Fast (Lateral Only)
3D   Image Resolution	Low Dose / Normal / High Def. / High Res. / Endodontic
Cephalometric Option (Lateral)	Normal / Wide

#### CBCT Mode

Tooth, Teeth, Jaw, TMJ, Face\*

\* : Option

#### Panoramic Mode

Panoramic	Standard / Orthogonal / Bitewing
TMJ	Lateral / PA / LAT-PA
Sinus	Lateral Mid / Lateral / PA(Sinus PA)

## Cephalometric Mode

Lateral / PA / AP / Water's view / SMV / Carpus

\* : Option

## ModelScan\* Mode

Stone, Impression

\* : Option

## 5. Size of FOV (Field of View)

### CBCT Mode

Tooth	Φ35-H40, Φ35-H60, Φ40-H50, Φ40-H70
Teeth	Φ60-H40, Φ60-H60, Φ70-H40, Φ70-H70, Φ70-H50, Φ70-H70, Φ80-H50, Φ80-H80
Jaw	Φ140-H50, Φ140-H80, Φ160-H50, Φ160-H80
TMJ	Φ160-H50, Φ160-H80
Face*	Φ140-H140, Φ160-H140

\* : Option

### ModelScan\* Mode

Stone	Φ140-H80
Impression	Φ140-H80

\* : Option

## 6. Size of Voxel

### CBCT Mode

Tooth	75, 100, 150 $\mu$ m
Teeth	100*, 150, 200 $\mu$ m
Jaw	200, 400 $\mu$ m
TMJ	200, 400 $\mu$ m
Face*	200, 400 $\mu$ m

\* : Option

### ModelScan\* Mode

Stone	200 $\mu$ m
Impression	200 $\mu$ m

## 7. Scan Time

### CBCT Mode

Tooth	7.7sec
Teeth	7.7sec
Jaw	14.5sec
TMJ	14.5sec
Face*	29sec

\* : Option

## Panoramic Mode

Panoramic	9 - 17sec
TMJ	2 - 16ec
Sinus	3 - 11sec

## Cephalometric Mode

Cephalometric	2 - 15.5sec
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## ModelScan\* Mode

Stone	14.5sec
Impression	14.5sec

\*: Option

## 8. Acquisition / Software

### Workstation

CPU	G4400 3.3Ghz
RAM	8GB (DDR4 2400)
HDD	1TB (C: 150GB / D: 750GB)
OS	Windows 10 64bit
Removable Storage	CD/DVD & USB2.0



## TRIANA™

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Control by Contrast, Brightness and Window/Level

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Zooming / Panning

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Measuring the Distance, Angle and Area

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Image Inversion Flip and Rotation

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Magnifying Glass (2D Viewer)

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Image Processing (Unsharp-mask - 2D Viewer)

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Drawing Free-pen, Line, Rectangle, Ellipse and Text (2D Viewer)

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Implant Drawing & Library

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Image Comparing (Up to 4 at once)

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Managing Image Mounts and Viewing for each Modalities

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Import Images (Twain, PACS Retrieve, Import - 2D Viewer)

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Export Images (DICOM Print, PACS Storage, CD Burn, Export)

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MAR-Volume Reconstruction

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STL(from Volume) Export and Model Scan

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Volume Slice Export Module

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Volume Rendering

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Volume Viewing Property Control

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Oblique MPR(Multi-Planar Reformat) Module

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Curved MPR Module(Panoramic Section, Cross-section)

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Nerve Drawing

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Implant BMD(Bone Mineral Density)

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## THEIA™

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Control by Contrast, Brightness, Gamma and Window/Level

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Zooming / Panning

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Measuring the Distance, Angle, Area and Scalar-Profile

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Image Inversion flip and rotation

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Image Processing(Sharpen, Unsharp-mask, Denoising)

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Drawing Free-pen, Line, Figure and Text

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Implant Drawing & Library

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Crown Drawing & Template

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Image Comparing (Up to 9 at once)
Managing Image Mounts and Viewing for each Modalities
Import Images (Twain, PACS Retrieve, Import)
Export Images (DICOM Print, PACS Storage, CD Burn, Export)
Report Template & Print
MAR-Volume Reconstruction
STL(from Volume) Export and Model Scan
Volume Slice Export Module
Volume Rendering
Volume Clipping and Sculpture
Volume Viewing Property Control
Oblique MPR(Multi-Planar Reformat) Module
Curved MPR Module(Panoramic Section/Volume, Cross-section)
TMJ Module(TMJ Section/Volume, Cross-section)
Nerve Drawing and Collision Check
Implant BMD(Bone Mineral Density) and Collision Check
Treatment Objects Manager
Axis Short-cut and Object Viewing Short-cut

## Displays

Screen	21.5"(55cm) LED Color Display
Image Matrix	1,920 x 1,080 Pixels (Full-HD)
Maximum Brightness	250 cd/m <sup>2</sup>
Contrast Ratio	1:1,000

## DICOM Features

DICOM Storage (Send/Receive)
DICOM Query/Retrieve
DICOM Print
DICOM Worklist Management

## 9. Operating Environment

Nominal Line Voltage	AC 100 - 240V
Input Current	20A
Line Frequency	50/60Hz
Phase	Single Phase

### For Storage

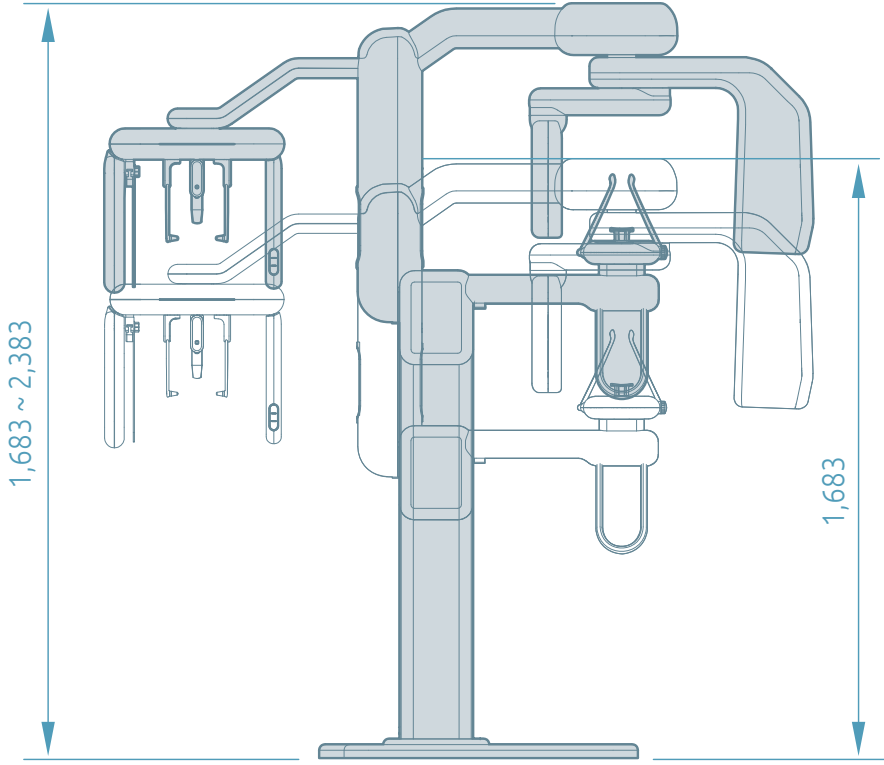
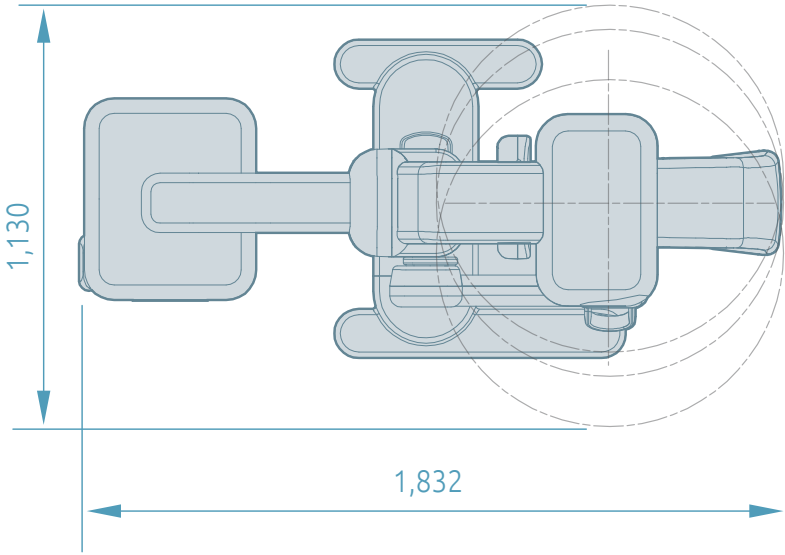
Temperature	-20 - 55°C (Detector: -15 - 55°C)
Relative Humidity	10 - 90% RH (No dew condensation)
Atmospheric Pressure	500 - 1,060hPa

### For Operation

Temperature	10° - 35°C
Relative Humidity	30 - 75% RH (No dew condensation)
Atmospheric Pressure	800 - 1,060hPa

# 10. Dimensions

- Weight : 160kg ± 5%
- Dimension : 1,887(W) x 1,130(D) x 2,383(H) mm







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