PaX-i (Model named PCH-2500)
Product Data
(AnyPano / AnyCeph, R-Troy)

Version : V1.0.0

1. General Description

1.1. Key Function

PaX-i is an advanced digital dental diagnostic system that provides Panoramic, and Cephalometric imaging capabilities into one equipments securing the space efficiency and cost saving. Also, the revolutionary platform of PaX-i provides a wide range of imaging option based on the customer's diagnostic needs. Finally, its advanced digital imaging process allows for a considerably more efficient diagnosis, well-rounded management of information, and a real-time sharing of image information over a network.

- 2 in 1 – Panoramic, Cephalometric
- Flexible platform for the functional scalability: from PANO to Ceph
- Superior Image Processing Algorithm
  - MAR (Metal Artifact Reduction): the effects of metal artifact reduction, in order to acquire a much clearer image
  - UHD (Ultra HD): Generates High-definition quality panoramic images (optional)
  - Auto-focusing: Acquire accurate images, regardless of the arch shape and positioning of the patient (optional)

1.2. Product options

Option	Description	Remark
PaX-i	Panoramic only	-
PaX-i SC	Panoramic & Cephalometric	CEPH: Scan type
PaX-i OP	Panoramic & Cephalometric	CEPH: One shot type

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2. Functional Specification

2.1. PANORAMIC

2.1.1. Summary

PaX-i conditionally offers 3 levels of panoramic imaging system.

Level	Detail Examination	Imaging Option	Remark
Basic	Pano examination / Special examination		Default
Intelligent	Pano examination / Special examination	*Auto Focusing	Optional
UHD	Pano examination / Special examination	Auto Focusing + **UHD	Optional

** Auto-focusing function is applied in only Standard Examination.*

*** UHD is applied in all of the Pano Examination except of Special Examination.*

2.1.2. Examination Programs & Scan Time

EXAMINATION	ARCH SELECTION	EXAMINATION PROGRAM	SCAN TIME (s)		
			UHD (Optional)	HD	Normal
PANO EXAMINATION	Narrow	Standard	20.2	13.5	10.1
		Right	10.1	6.7	5.1
		Front	16.7	11.1	8.4
		Left	10.1	6.7	5.1
	Normal	Standard	20.2	13.5	10.1
		Right	10.1	6.7	5.1
		Front	16.7	11.1	8.4
		Left	10.1	6.7	5.1
	Wide	Standard	20.2	13.5	10.1
		Right	10.1	6.7	5.1
		Front	16.7	11.1	8.4
		Left	10.1	6.7	5.1
	Child	Standard	17.2	11.5	8.6
		Right	8.6	5.7	4.3
		Front	13.7	9.2	6.9
		Left	8.6	5.7	4.3
	Orthogonal	Standard	20.2	13.5	10.1
		Right	10.1	6.7	5.1
		Front	16.7	11.1	8.4

EXAMINATION	ARCH SELECTION	EXAMINATION PROGRAM	SCAN TIME (s)		
			UHD (Optional)	HD	Normal
		Left	10.1	6.7	5.1
		Bitewing	14.4	9.6	7.2
		Bitewing Incisor	3.7	2.5	1.9
		Bitewing Right	7.2	4.8	3.6
		Bitewing Left	7.2	4.8	3.6
SPECIAL EXAMINATION	Normal	TMJ LAT Open		6.1	4.6
		TMJ LAT Close			
		TMJ PA Open		7.0	5.3
		TMJ PA Close			
		Sinus LAT		6.0	4.5
		Sinus PA		10.3	7.7

Panoramic Sample Image

[Pano_HD_Standard]

2.2. CEPHALOMETRIC

2.2.1. Examination Programs & Scan Time

<Scan type>

EXAMINATION PROGRAM	SCAN TIME (s)
Lateral	12.94
PA	12.94
SMV	12.94
Waters View	12.94
Carpus	12.94

Cephalometric sample image

[Lateral]

[PA]

<One shot type>

EXAMINATION PROGRAM	SCAN TIME (s)
Lateral	0.9
PA	1.2
SMV	1.2
Waters View	1.2
Carpus	1.2

Cephalometric sample image

[Lateral]

[PA]

3. Recommended PC Specification

Item	HP	LENOVO
CPU	Intel® Core® i3-2120 3.3GHz	Intel® Core® i3-2120 3.3GHz
RAM	4GB (2GBx2) DDR3-1333 ECC RAM	4GB (2GBx2) DDR3 1333MHz UDIMM – Non ECC
Hard disk drive	500GB SATA 7200 1st HDD	500GB SATA 7200 1st HDD
Graphic board	Intel®HD Graphics	Nvidia Geforce310 HP 512MB
Ethernet interface	Realtek RTL8171E Gigabit Ethernet	Intel®82579 Gigabit Ethernet
Serial Port (RS232)	1 (On borad)	1 (On board)
Power supply	≥ 300 Watts (85% Efficiency)	≥ 280 Watts (85% Efficiency)
Slots	1 PCI Express x 1 Slot 1 PCI Express x 16 Slot	1 PCI Express x 1 Slot 1 PCI Express x 16 Slot
	2 PCI Slots	2 PCI Slots
CD/DVD drive	SuperMulti DVD Drive	SATA DVD-ROM/DVD Recordable
Monitor	19" 1280 x 1024 screen resolution	19" 1280 x 1024 screen resolution
Operating system	Windows 7 Home Premium 64-Bit OS	Windows 7 Home Premium 64-Bit OS
Recommended system	Pro 3330	M81e

4. Mechanical Specification

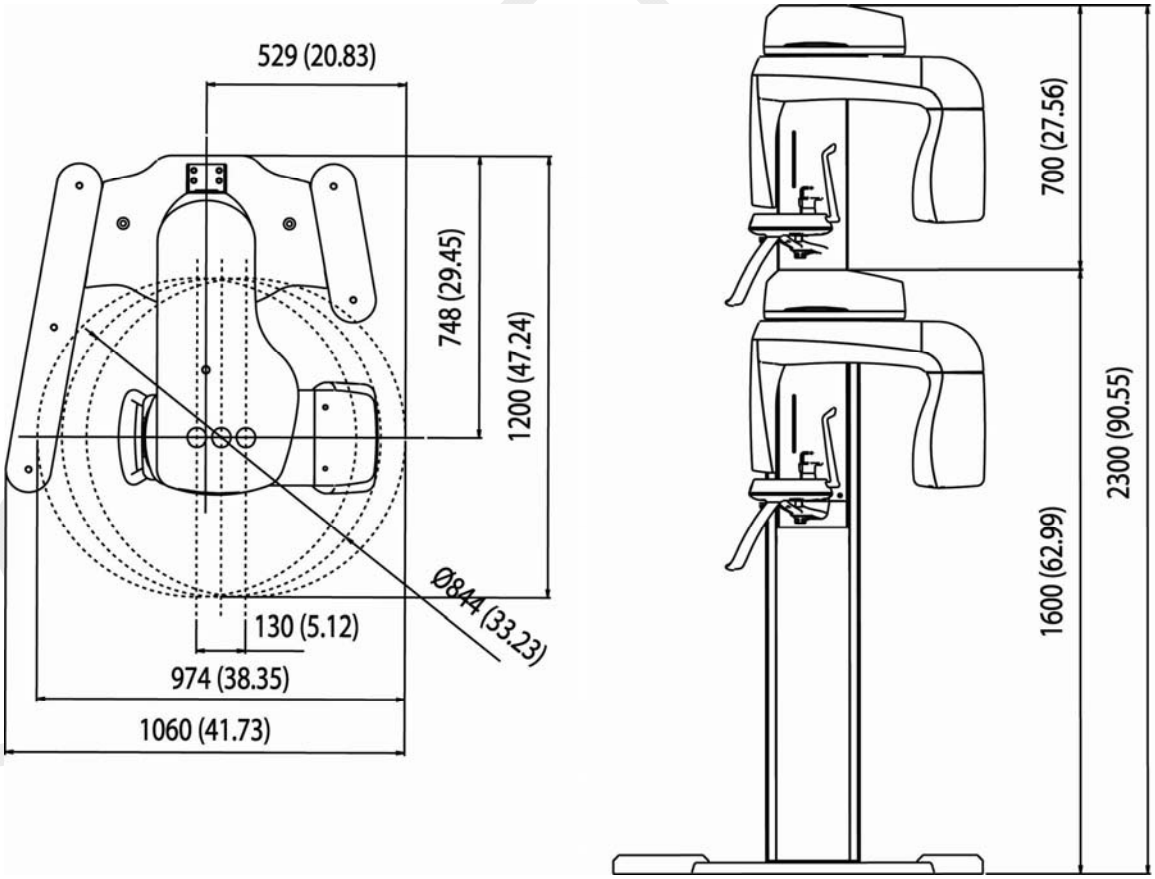
4.1. Image Magnification

Mode	FDD	FOD	ODD	magnification
Panoramic	490.3 mm	375.5 mm	114.8 mm	1.3 constant (virtual 1.00 constant)
Cephalometric	1745 mm	1524 mm	221 mm	1.14 constant

* FDD : Focal Spot to Detector Distance
* FOD : Focal Spot to object Distance
* ODD : Object to Detector Distance (ODD = FDD – FOD)
* Magnification = FDD / FOD

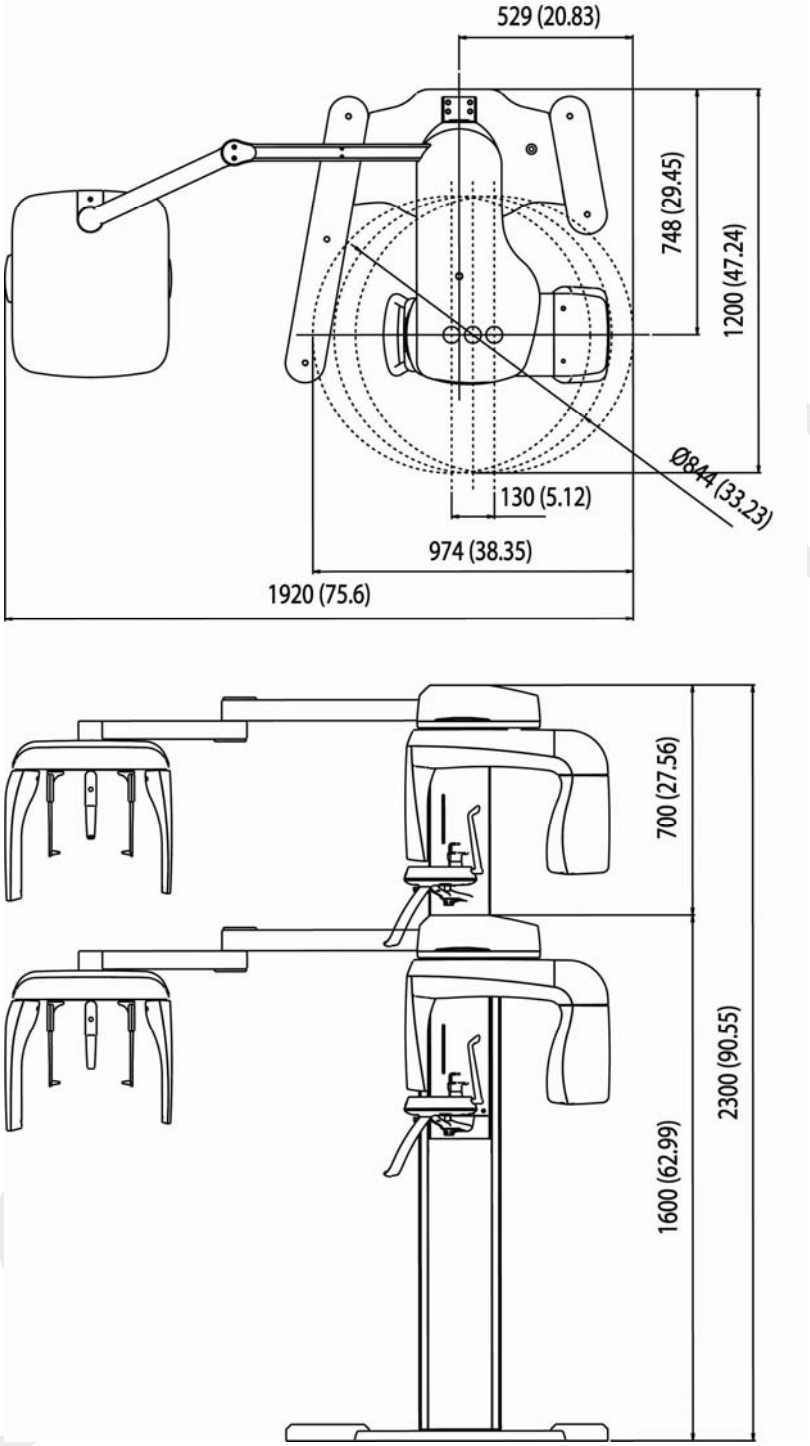
4.2. Dimensions of Unit

Without cephalometric unit



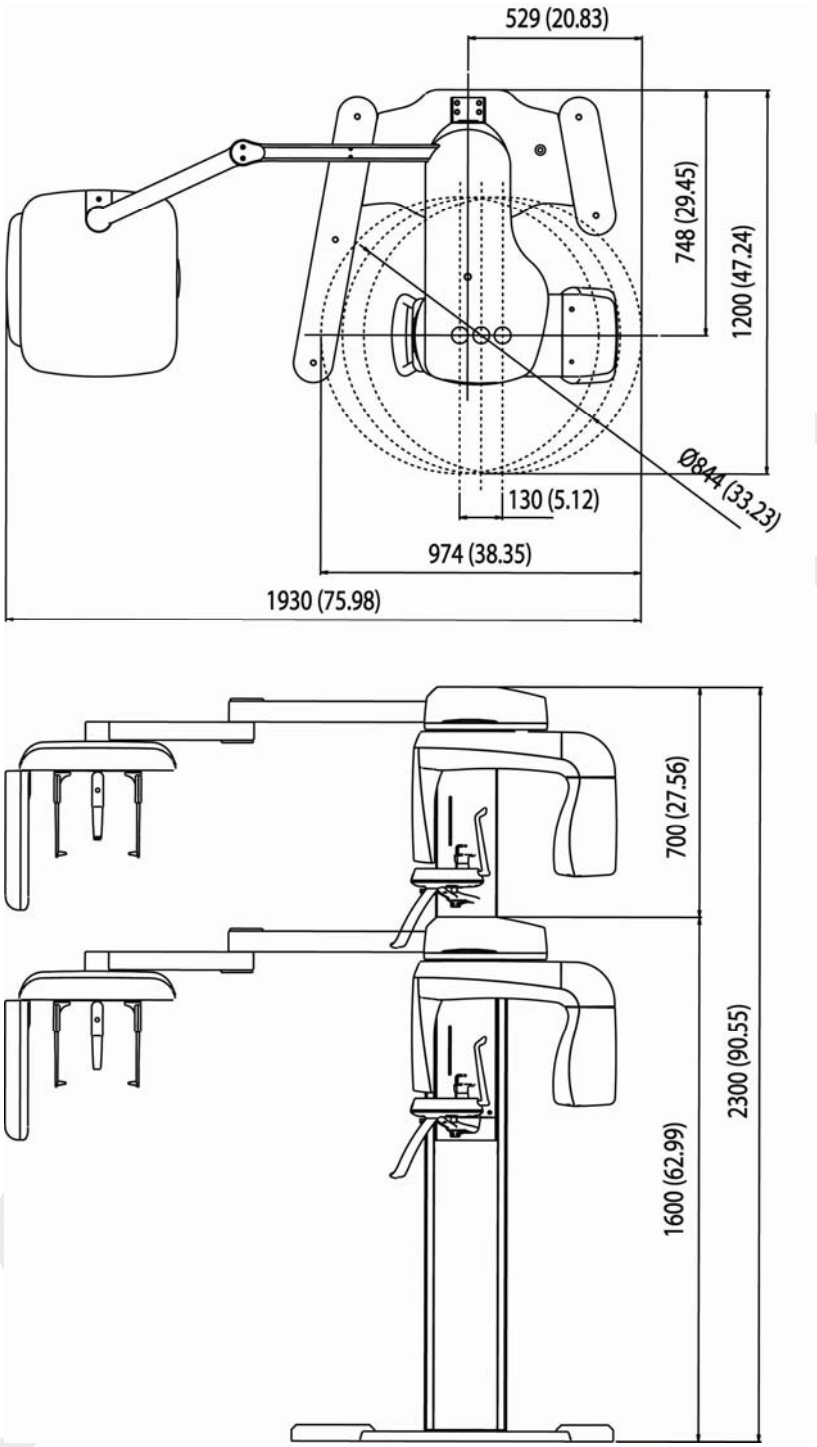
[Unit : mm (inches)]

With cephalometric unit (Scan type)



[Unit : mm (inches)]

With cephalometric unit (One shot type)



[Unit : mm (inches)]

Item		Description
Weight	without cephalometric unit	140 kg (308.6 lbs)
	with cephalometric unit (Scan type)	170 kg (374.8 lbs)
	with cephalometric unit (One shot type)	180 kg (396.8 lbs)
Total height		Max. 2300 mm (90.55 in.)
Vertical column movement		Max. 700 mm (Max. 27.56 in.)
Length x Width x Height	without cephalometric unit	1060(L) x 1200(W) x 2300(H) mm (41.73(L) x 47.24(W) x 90.55(H) in.)
	with cephalometric unit (Scan type)	1920(L) x 1200(W) x 2300(H) mm (75.6(L) x 47.24(W) x 90.55(H) in.)
	with cephalometric unit (One shot type)	1930(L) x 1200(W) x 2300(H) mm (75.98(L) x 47.24(W) x 90.55(H) in.)
Type of installation		Base Stand / Wall Mount

5. Technical specification

5.1. X-ray Generator

Item			Description
Model			HDG-07B10T2
Rated output power			0.99 KW
High voltage Generator	Type		40KHz Inverter Type
	Normal/ Pulse	kV	50 ~ 90 kV
		mA	4 ~ 10 mA
	Cooling		Automatically controlled / Protect ≥ 60℃ Option: Air Cooling
	Total filtration		2.8 mm Al eq.
X-ray Tube	Manufacturer		Toshiba
	Model		D-052SB (Stationary Anode type)
	Focal spot size		0.5 mm (IEC60336)
	Target Angle		5 degree
	Inherent Filtration		At least 0.8mm Al equivalent at 50kV
	X- ray Coverage		95 x 380mm at SID 550mm
	Anode Heat Content		35 kJ
	Duty Cycle		1:60 or more (Exposure time : interval time)

5.2. Detector Specification

Item	Description		
	Panoramic	Cephalometric	
Model	Xmaru1501CF	Xmaru2301CF	1210SGA
Detector Type	CMOS photodiode array	CMOS photodiode array	Amorphous silicon TFT with scintillator
Pixel size	100 ㎛	100 ㎛	127 ㎛
Active area	6 x 150.4 mm	5.9 x 230.4 mm	264 x 325 mm
Frame Rate	300 fps	200 fps	240 fps
A/D	14 bits	14 bits	14 bits

6. Electrical Characteristics

Item	Description
Power supply voltage	AC 100 ~ 120/ 200 ~ 240 V
Frequency	50/60 Hz
Power rating	2.0 kVA

** The input line voltage depends on the local electrical distribution system.*

** Allowable input voltage fluctuation requirement: ±10%*

7. Environmental Characteristics

Item	Description
Operating temperature	10 ~ 35℃
Operating relative humidity	30 ~ 75%
Operating atmospheric pressure	700 ~ 1060 hPa
Transport and storage temperature	-10 ~ 50℃
Transport and storage relative humidity	20 ~ 90%
Transport and storage atmospheric pressure	500 ~ 1060 hPa

8. Standards and Regulations

This product is designed and produced to meet the following standards:

IEC/EN/UL 60601-1, IEC/EN 60601-1-1, IEC/EN 60601-1-2, IEC/EN 60601-1-3,
IEC/EN 60601-2-7, IEC/EN 60601-2-28, IEC/EN 60601-2-32,
ISO 9001, ISO 13485

CE
0120

CE symbol grants the product compliance to the European Directive for Medical Devices 93/42/EEC as amended by 2007/47/EC as a class IIb device.

9. Additional Information

For additional information regarding any other products, please contact us by one of the following methods:

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