



Let the  
future begin!

EN • PRODUCT LAUNCH DOCUMENTATION

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**I-MAX**

Wall-mounted panoramic system

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# 1. PRODUCT IDENTITY AND POSITIONNING

Name Logo	Unit design
<p>Commercial designation «The New IMAX generation »</p> 	

Main competitors advantages	
1- Design light and elegant	<ul style="list-style-type: none"> <li>• Drive a new generation of wall mounted Panoramic units,</li> <li>• Practice valorization to patients,</li> <li>• The lightest unit on the market,</li> <li>• Only a wall to fix the unit as an Intra-oral Xray generator.</li> </ul>
2- Image quality with a full range of programs	<ul style="list-style-type: none"> <li>• Patient positionning face-to-face,</li> <li>• Control panel software intuitive and very fast to perform,</li> <li>• Enhancement filters and imaging tool directly included in the new designed control software.</li> </ul>
3- Easy and fast practice installation	<ul style="list-style-type: none"> <li>• Compact and Light delivered in one solo packaging,</li> <li>• Exclusive Easy-To-Instal system: the unit is delivered entirely amounted, with an "intelligent" system to fix it directly on the wall by one technician,</li> <li>• High level of electronic optimization, only 1 PCBoard: service intervention easy to fix the default,</li> <li>• Unit fully controlled remotely.</li> </ul>
4- A controlled budget	<ul style="list-style-type: none"> <li>• Unit industrially optimised,</li> <li>• A minimal Installation cost, economical shipment,</li> <li>• A failure rate largely reduced,</li> <li>• The best ratio Investment/Performance of the market.</li> </ul>

## 2. TECHNICAL CHARACTERISTICS

<b>General features</b>		
Manufacturer	<b>OWANDY RADIOLOGY</b> <b>77183 Croissy-Beaubourg, France</b>	
Class	Class II B for European Directive for Medical Devices 93/42 Class II for Canadian MDR Class I with type B applied parts according to IEC 60601-1 Class II according to 21CFR-subchapter J (for 110-120V version)	
Protection degree	IPX0 standard device	
Rated line voltage	220-240 V~	110-120 V~
Line frequency	50/60Hz	
Maximum line current	3,5 A @ 230 V~ 50/60 Hz	
Power consumption	1.6 kVA @ 230 V~ 50/60 Hz	
Line apparent resistance	0.5 $\Omega$ max	--
Line voltage regulation	--	< 3 % at 99 V~
Rated output voltage (kVp)	60 ÷ 70 kV <sub>p</sub> , with 2 kV <sub>p</sub> steps	
Anodic current	2 ÷ 7.1 mA, according to r20 scale	
<b>Mechanical characteristics</b>		
Focus-receptor distance	50cm (20")	
Telescopic motorized column run	66cm (26")	
Maximum total height	218cm (86")	
Weight (complete unit, wall mounted version)	62kg	
Weight of optional unit support	6kg	
<b>Working conditions</b>		
Minimum room size	120x120cm (47.2"x47.2")	
Recommended room size	120x140cm (47.2"x55.1")	
<b>Unit footprint dimensions (mm)</b>	<b>1107(wall side)x953mm = 1m<sup>2</sup></b>	
Maximum working temperature range	+ 10° ÷ + 40°	
Relative working humidity (RH) range	30% ÷ 75%	
Temperature range for transport and storing	- 20° ÷ + 70°	
Humidity range for transport and storing	< 95% without condense	
Minimum atmospheric pressure for transport and storing	630 hPa	

### 3. SENSORS AND XRAY GENERATOR CHARACTERISTICS

#### Tube-head features

Model	MP 05
Manufacturer	V.S.M. S.p.A. 20090 Buccinasco (MI) Italia
Maximum tube voltage with accuracy	70 kV <sub>p</sub> ± 8 %
Maximum anodic current with accuracy	7 mA ± 10 %
Duty cycle	1:16
Nominal power	490 W (70 kV <sub>p</sub> - 7 mA)
Total filtration	2mm Al eq. @ 70 kV <sub>p</sub>
HVL (Half value layer)	> 2.5mm Al eq. @ 70 kV <sub>p</sub>
Transformer insulation	Oil bath
Cooling	By convection
Leakage radiation at 1 m	< 0.5 mGy/h @ 70 kV <sub>p</sub> - 7 mA - 3 s duty cycle 1/16

#### X-ray tube features

Manufacturer	Toshiba (Japan)
Type	D-058
Nominal focus size	0.5 EN 60336
Inherent filtration	1.0mm Al eq.
Anode tilt	15.5°
Anode material	Tungsten
Nominal maximum voltage	70 kV <sub>p</sub>
Filament max current	3 A
Filament max voltage	3.6 V
Anode thermal capacity	13 J

#### Digital Sensor features

Sensible area (H x L)	PAN sensor: 146 x 6 mm
Sensor pixel dimensions	48x48µm
Pixel (H)	PAN: 1536

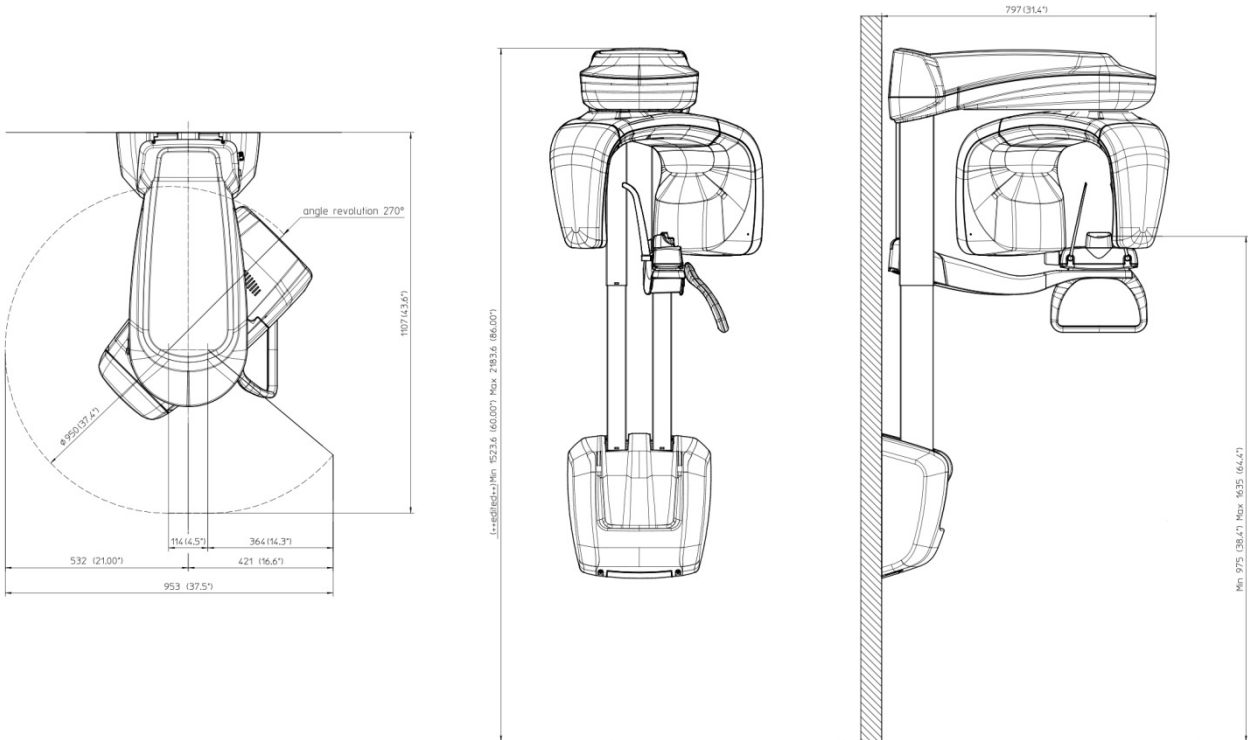
#### Laser centering devices

2 laser beams are used for patient positioning. Beams align mid Sagittal and Frankfurt planes. Class 2 laser product according to IEC Standard 60825-1:2007.

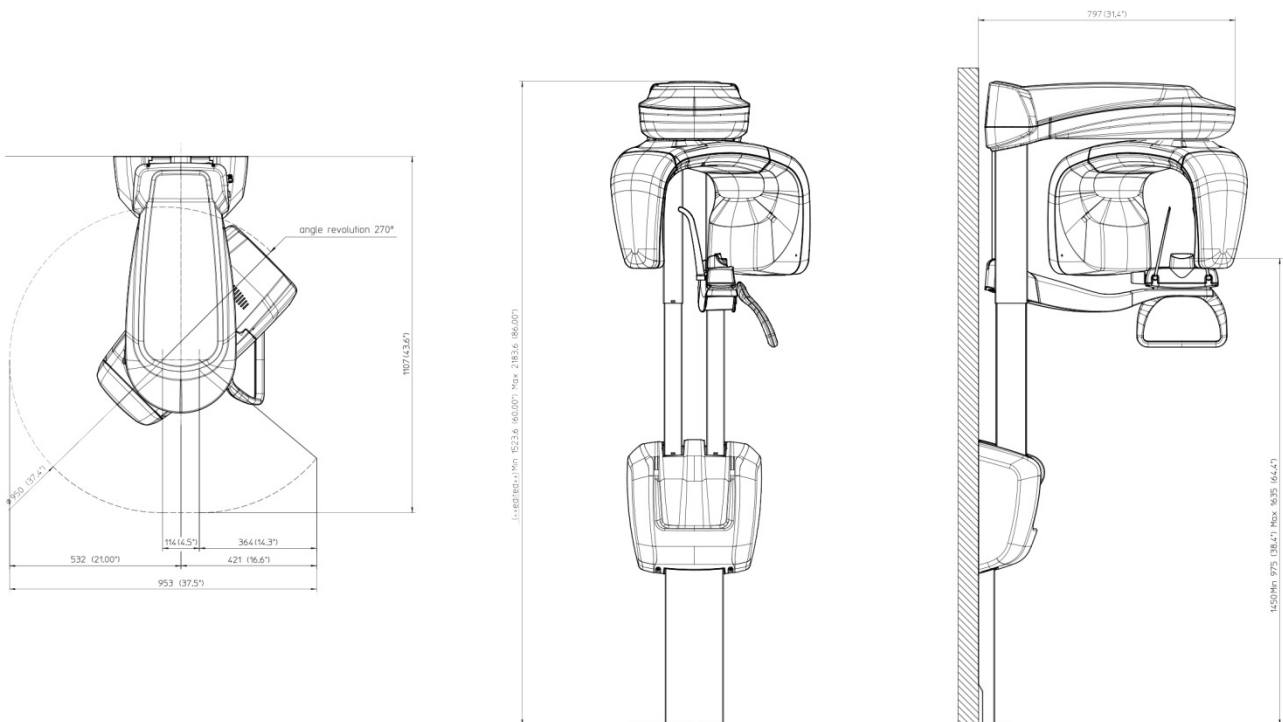
Wave length	650 nm ± 10 nm
Divergence	< 2.0 mRad
Optical power on the working surface	< 1 mW

## 4. UNITS VERSION AND DIMENSIONS

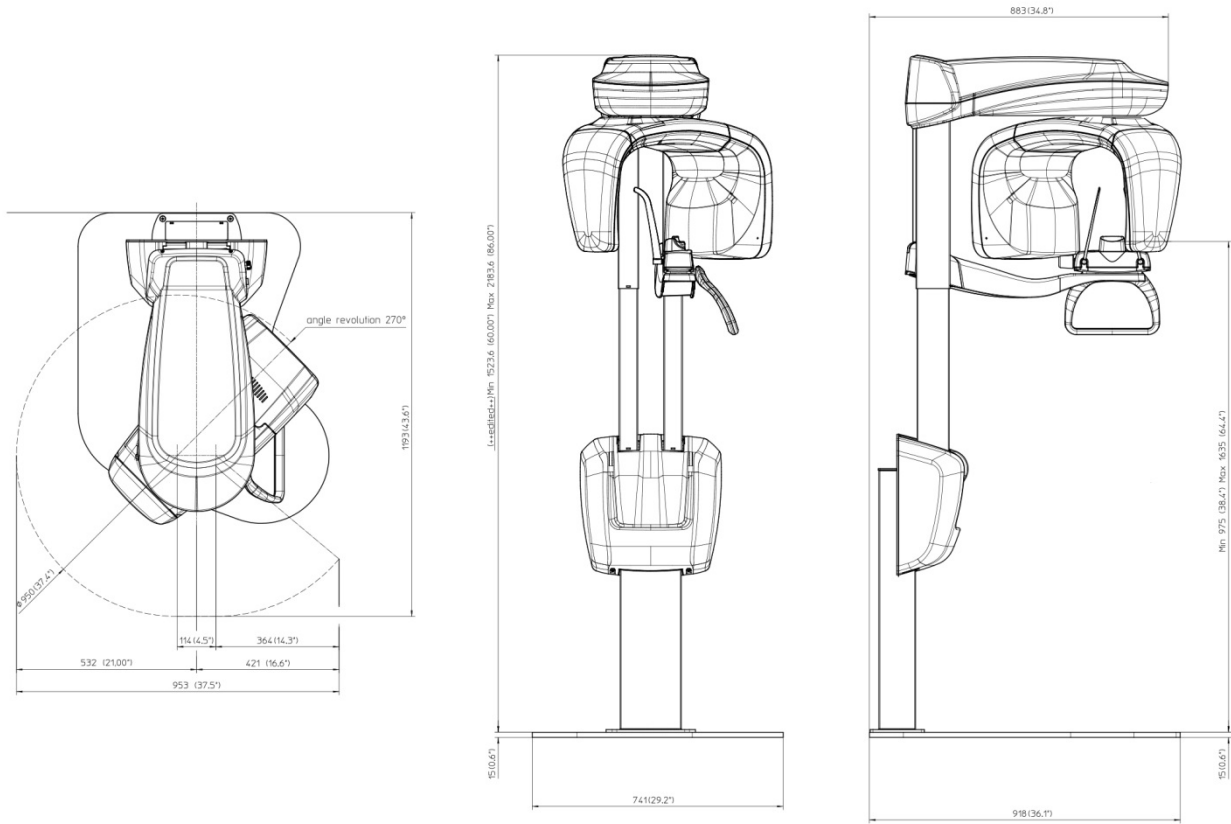
### Wall mounted unit



### Simple foot version unit



**Floor mounted version unit**



## 5. EXAMINATION MODES

### Exposure times

Panoramic (PAN)	14.4 s PAN Adult / Child
EmiPanoramic	7.4 s Adult / 7.3 s Child
Improved orthogonality Panoramic	11.9 s Adult / Child
Reduced dose Panoramic	11.4 s Adult / Child
Frontal Dentition	4.4 s Adult / Child
TMJ mouth closed/open	2.44 s per image for left and right joint in open and closed condition, total of 9.7 s
Sinus P/A projection	9.4 s

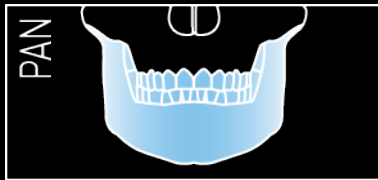
### Image magnification

Adult / Child standard Panoramic	1 : 1.23 (constant over dentition part)
TMJ open/closed mouth, 4 images	1 : 1.20 (nominal)
Sinus	1 : 1.22 (nominal)

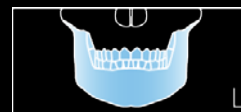
### Programs

- Examination selection type
- Automatic selection for Adult and Child, 3 Sizes
  - Manual selection also possible for each programs
  - Collimator with automatic positioning

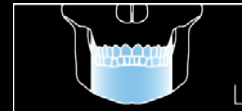
#### PANORAMIC programs range



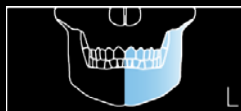
- Standard Panoramic



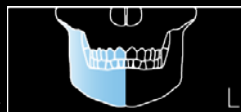
- Reduced dose Panoramic



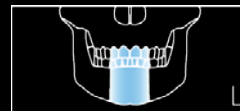
- Half Panoramic Left



- Half Panoramic Right



- Frontal dentition

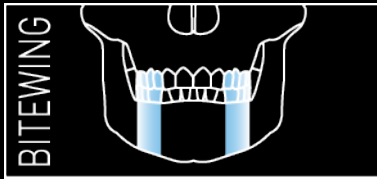


- Improved orthogonality Panoramic

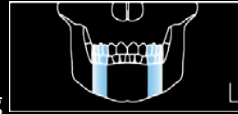




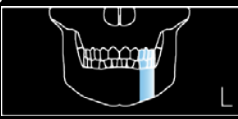
BITEWING programs range



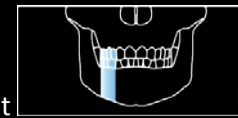
- Standard Bitewing



- Half Bitewing Left



- Half Bitewing Right



TMJ (Temporal Mandibular Joint) programs range



- Standard TMJ, open/closed mouth



- Half TMJ sequence exam



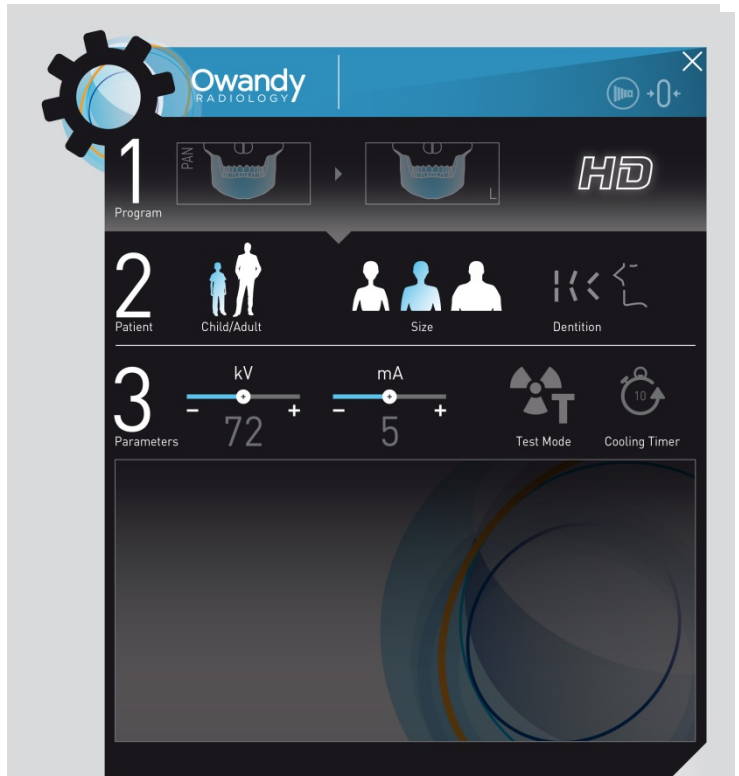
Sinus program



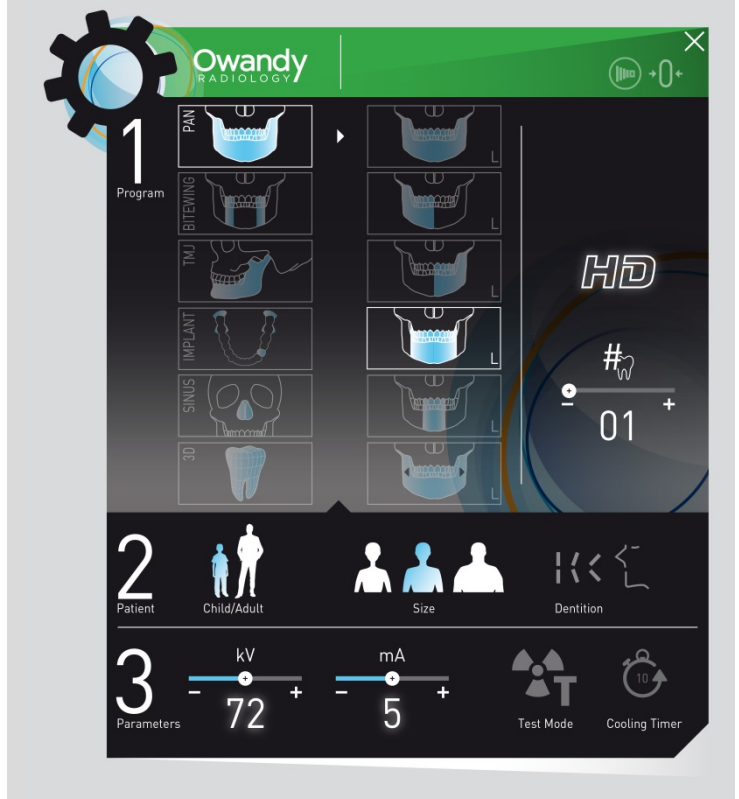
- Sinus P/A projection

## 6. NEW USER SOFTWARE INTERFACE

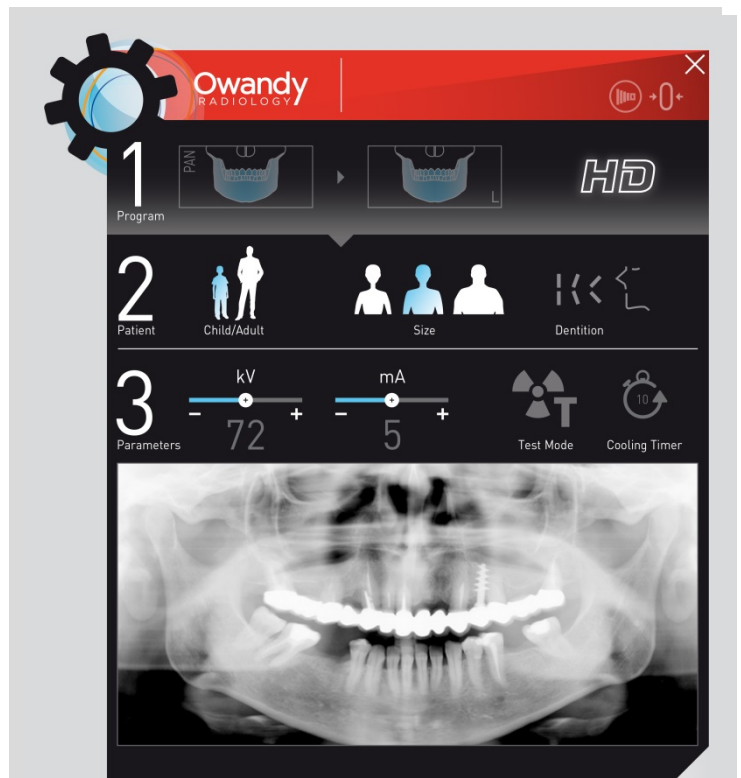
▶ Main settings window: default exam selected automatically.



▶ Main window with complete program selection menu, in extended view.



► Main window with the image live preview.



► Optional window with image preset filtered views.  
Some tool and enhancement filter can be adjustable to modify the image before forwarding it to the dental practice management software linked.

