



Let the
future begin!

EN • PRODUCT LAUNCH DOCUMENTATION

Version 01 – OCTOBER, the 10th 2015



I-MAX

Wall-mounted panoramic system

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1. PRODUCT IDENTITY AND POSITIONNING

Name Logo

Commercial designation «The New IMAX generation »



Unit design




Main competitors advantages

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

2. TECHNICAL CHARACTERISTICS

General features

Manufacturer	OWANDY RADIOLOGY 77183 Croissy-Beaubourg, France	
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 Ω max	--
Line voltage regulation	--	< 3 % at 99 V~
Rated output voltage (kVp)	60 ÷ 70 kV _p , with 2 kV _p steps	
Anodic current	2 ÷ 7.1 mA, according to r20 scale	

Mechanical characteristics

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

Working conditions

Minimum room size	120x120cm (47.2"x47.2")
Recommended room size	120x140cm (47.2"x55.1")
Unit footprint dimensions (mm)	1107(wall side)x953mm = 1m²
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 _p ± 8 %
Maximum anodic current with accuracy	7 mA ± 10 %
Duty cycle	1:16
Nominal power	490 W (70 kV _p - 7 mA)
Total filtration	2mm Al eq. @ 70 kV _p
HVL (Half value layer)	> 2.5mm Al eq. @ 70 kV _p
Transformer insulation	Oil bath
Cooling	By convection
Leakage radiation at 1 m	< 0.5 mGy/h @ 70 kV _p - 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 _p
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

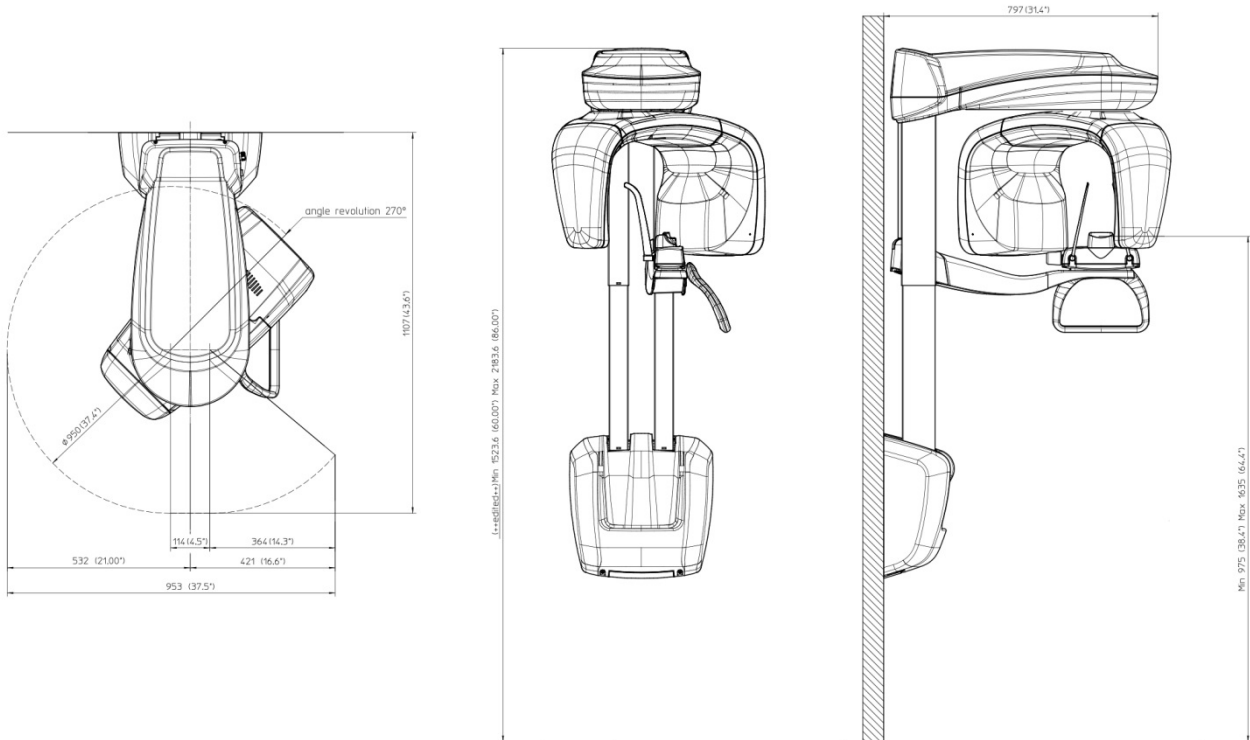
Laser centering devices

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.

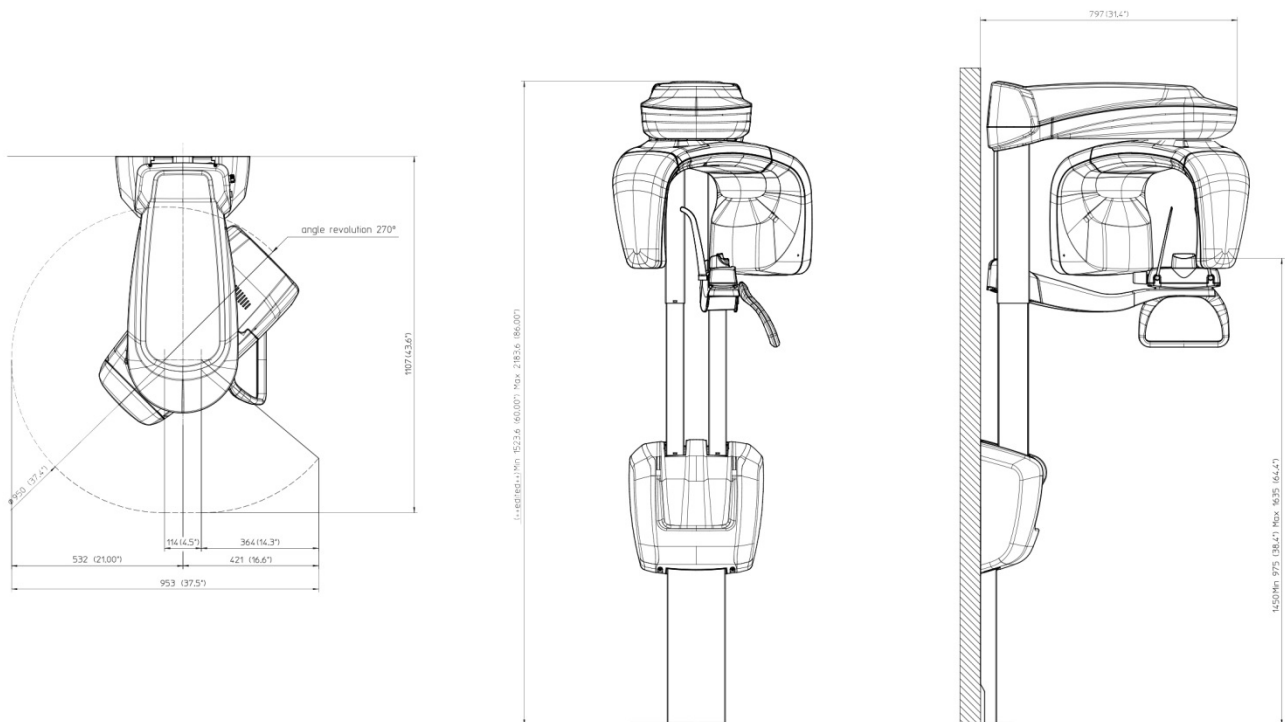
Wave length	650 nm ± 10 nm
Divergence	< 2.0 mRad
Optical power on the working surface	< 1 mW

4. UNITS VERSION AND DIMENSIONS

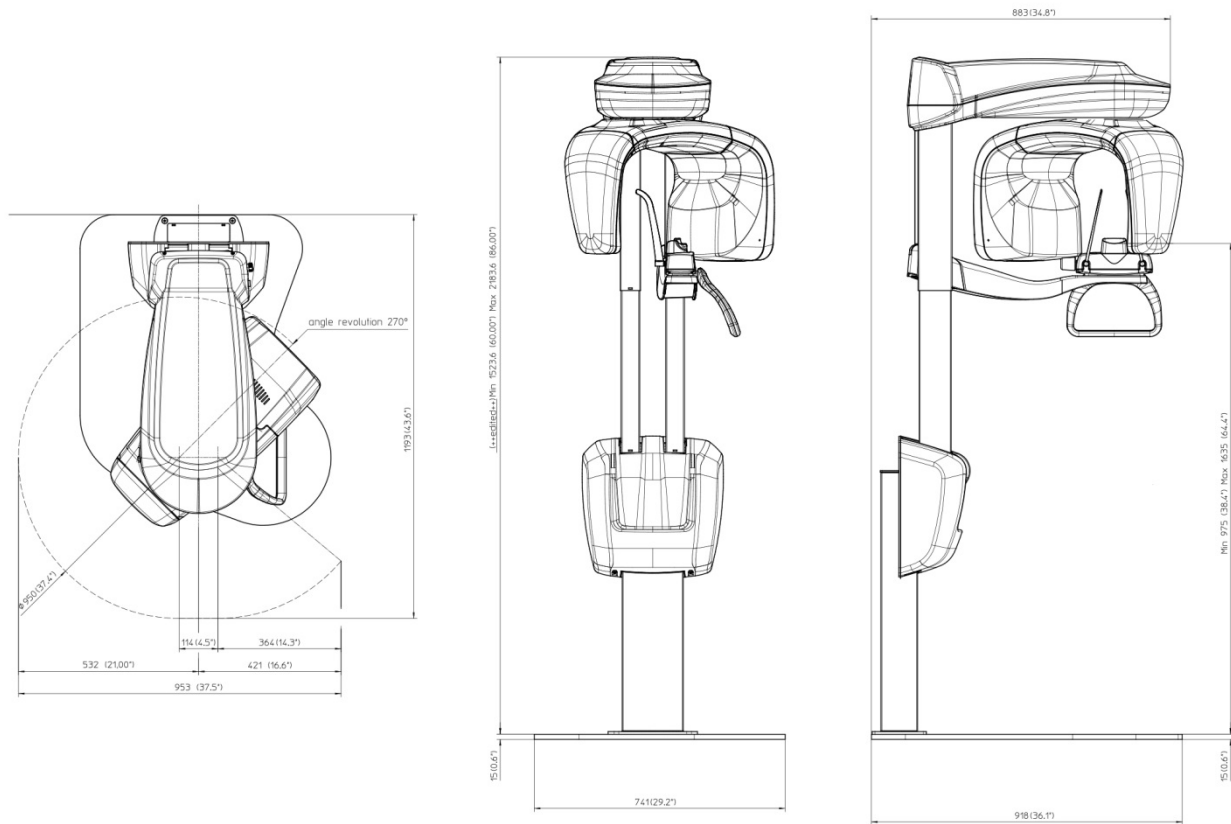
Wall mounted unit



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

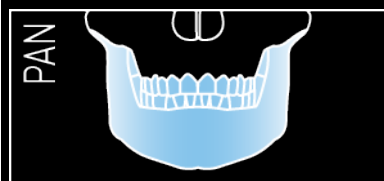
Image magnification

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)

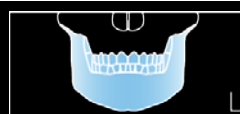
Programs

Examination selection type	<ul style="list-style-type: none"> Automatic selection for Adult and Child, 3 Sizes Manual selection also possible for each programs Collimator with automatic positioning
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PANORAMIC programs range



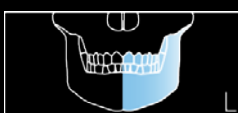
- Standard Panoramic



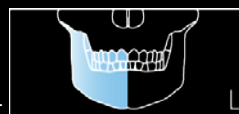
- Reduced dose Panoramic



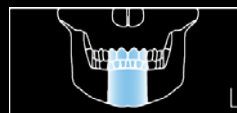
- Half Panoramic Left



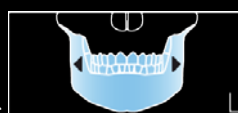
- Half Panoramic Right



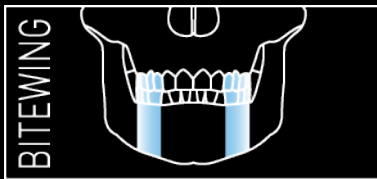
- Frontal dentition



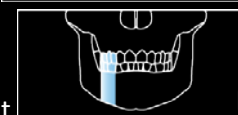
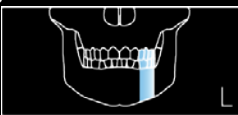
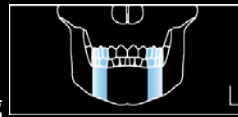
- Improved orthogonality Panoramic



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



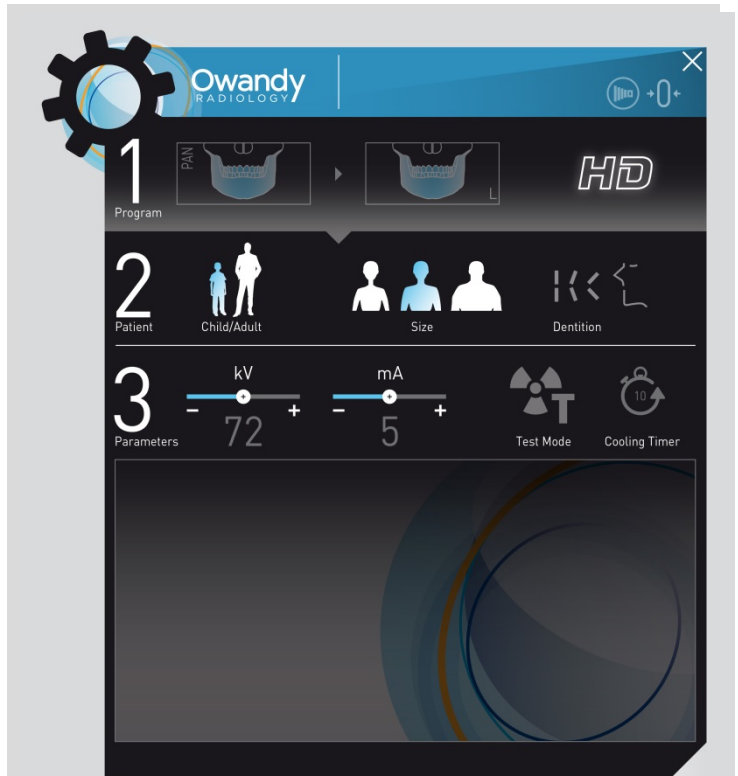
Sinus program



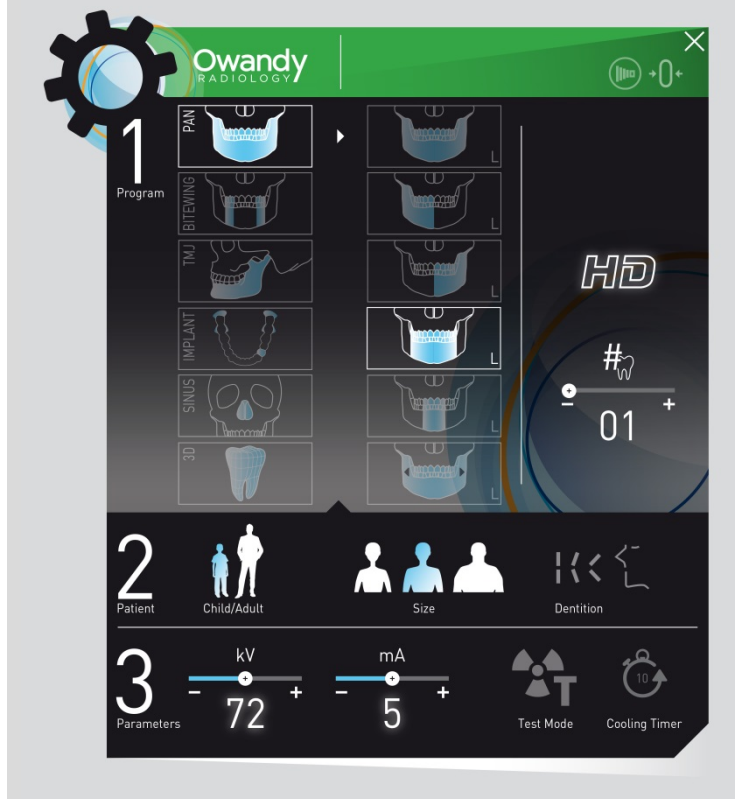
- Sinus P/A projection

6. NEW USER SOFTWARE INTERFACE

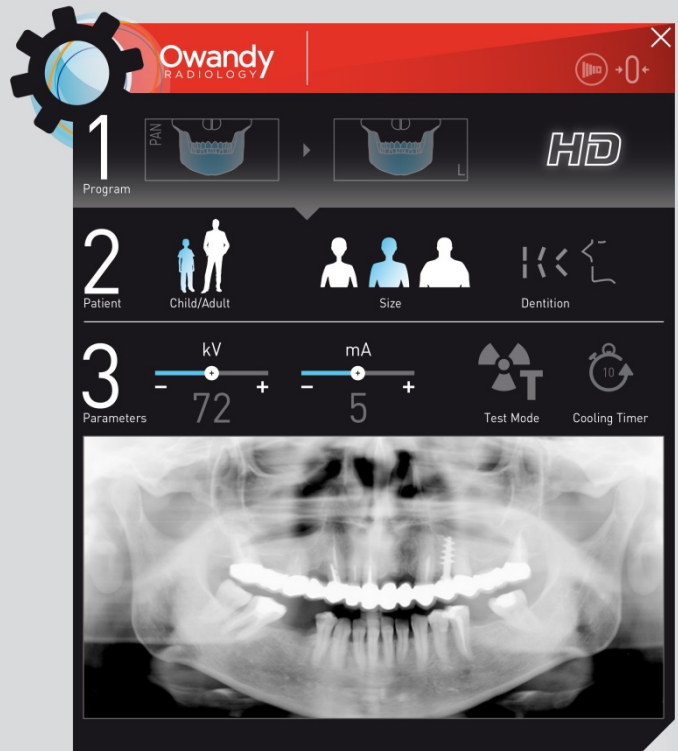
► Main settings window: default exam selected automatically.



► 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.

