# VETERINARY SOLUTIONS

### PLANMECA GROUP

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## Better care through innovation

### An introduction from our President

"Planmeca Group has been introducing pioneering innovations in healthcare technology for already half a century. We are dedicated to better patient care through advanced solutions that improve the daily workflow of dental, medical and veterinary professionals around the world. Our passion for R&D and our close collaboration with healthcare and veterinary professionals as well as leading universities have brought us unrivalled scientific knowledge and an in-depth understanding of clinical workflows.

As a privately-owned company, we are in control of our own destiny and able to make the long-term R&D commitments that are the driving force behind our innovations. We firmly believe that this dedication to continuous development will enable us to make your work easier and more efficient for many years to come.

We are thrilled to invite you to discover Planmeca's world of veterinary solutions!"

**Heikki Kyöstilä** President and founder

Planmeca Group



## **Veterinary solutions**

For better care and more efficient work days

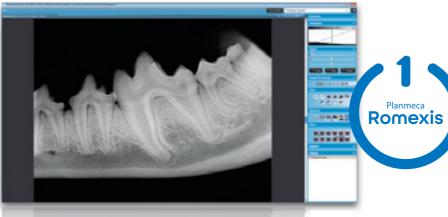




Planmeca ProSensor<sup>®</sup> HD sensor system



Planmeca ProScanner<sup>®</sup> 2.0 imaging plate scanner



Planmeca Romexis® software





LM-Dental hand instruments

Planmeca Compact™ i5 dental unit

solutions

Discover the world of

**Planmeca veterinary** 



## Planmeca ProX<sup>™</sup>

## Versatile intraoral X-ray unit

The **Planmeca ProX**<sup>™</sup> intraoral X-ray unit offers easy and precise positioning, a straightforward imaging process, and top-quality images in high resolution. With its unique features and practical design, Planmeca ProX makes imaging teeth, joints, and paws easy.

### Highly adaptable unit

The steady X-ray unit arm enables the accurate and drift-free positioning of the lightweight tube head. Thanks to its flexible installation options, the unit can be suited to most clinic layouts.

Planmeca ProX<sup>™</sup> adapts to both short-cone and long-cone imaging techniques. For maximum radiation hygiene, an additional rectangular collimator can be adapted to the long cone.

### Quick imaging parameter settings

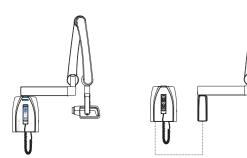
Planmeca ProX comes pre-programmed with quick settings for different exposure value combinations. Simply select the image receptor to automatically adapt the pre-programmed settings for film, imaging plate or digital sensor. Together with the **Planmeca Romexis**<sup>®</sup> software, Planmeca ProX guarantees a smooth workflow.

### Faster X-ray examinations with digital sensor

For the ultimate user-friendly experience, use Planmeca ProX together with the **Planmeca ProSensor® HD** digital sensor system. The image is displayed on the screen just seconds after exposure, significantly reducing the time needed for an intraoral X-ray examination compared to conventional film.

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### **Flexible installation options**









Easy integration with the Planmeca ProSensor HD digital sensor system. A smooth magnetic connection enables one-handed operation.





### **Key features:**

• Ready integration with Planmeca ProSensor® HD

- Versatile installation options
- Pre-programmed quick settings

## Planmeca ProSensor® HD

### Reliable and easy-to-connect HD intraoral sensor

The **Planmeca ProSensor® HD** intraoral sensor offers a unique combination of unparalleled image quality, high-end design, and optimal usability.

### **Patient-centred design**

Made to last

**Planmeca ProSensor**<sup>®</sup> **HD** is available in three different sizes. The rounded sensor edges and fast procedure ensure patient comfort, and the images are ready in a matter of seconds. For optimal endurance, the sensor cable has been reinforced and contains only two wires. The sensor's unique inside protection guards against biting and impacts.

### Every layer designed to achieve the perfect result

White housing enhances visibility for easy positioning

**Carbon fibre plate** protects against bites and other external impacts

Shock absorbing layer protects against impacts

Scintillator sharp images, no blurring

**Fibre optic plate (FOP)** high signal-to-noise ratio (SNR) and modulation transfer function (MTF)

**Optical coupling** perfectly optimised for a vivid image throughout the image area

CMOS image sensor HD class camera LTCC electronics

durable sensor

Back scattering shield reliable patient protection and sharp images

Cable only two wires and a Kevlar coating for premium durability

### Exceptional image quality

With a resolution of more than 20 lp/mm, Planmeca ProSensor HD offers real HD image quality. The advanced imaging sensor with its fibre-optic layer captures sharp, low-noise and high contrast images, while the wide dynamic range of the sensor ensures successful results every time.

### **Key features:**

- Sharp and low-noise images with high contrast
- Durable and patient-centred design
- Smooth magnetic connection enables one-handed operation

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### **Optimal usability**

Planmeca ProSensor HD can be easily integrated into the **Planmeca ProX™** intraoral X-ray unit or connected to a PC via Ethernet or USB. The control box is equipped with a colour-coded LED light for instant visual feedback on the imaging procedure. The hermetically sealed housing ensures effective infection control.



## Planmeca ProScanner® 2.0

### User-friendly and reliable imaging plate scanner

The **Planmeca ProScanner**<sup>®</sup> **2.0** imaging plate scanner is a high-quality option for fast and dependable intraoral imaging. The fast and user-friendly scanner provides top-quality images and streamlines your intraoral imaging workflow.

### Reliable and dependable

Planmeca ProScanner<sup>®</sup> 2.0 has been designed to be a seamless part of your clinic's workflow. It is a true workhorse imaging plate scanner that is maintenance-free and extremely durable. The compact scanner fits into any room, helping all clinics prevent downtime and ensure maximum efficiency.

### **Smart imaging plates**

Planmeca ProScanner 2.0 utilises RFID technology for fast scanning and identification. The scanner's high-quality plates can be used numerous times and the integrated eraser instantly prepares them for further imaging. The thin plates are available in sizes 0, 1 and 2.

### Easy to use

Planmeca ProScanner 2.0 significantly speeds up your intraoral imaging workflow with its fast scanning process. Just insert the imaging plate, scan it and diagnose the captured image. If the wrong side of the plate is accidentally exposed, it is easy to notice immediately from the captured image.



### Planmeca Romexis<sup>®</sup> software integration

Each imaging plate is equipped with a digital serial number so you can sort, view, and compare images for quality control, as well as count exposures by using the serial number of each plate in the **Planmeca Romexis**<sup>®</sup> software.

#### Key benefits

- Maintenance-free imaging plate scanner designed for active use
- Smart and durable Planmeca imaging plates
- Accelerated workflow due to a streamlined imaging process



## Planmed Verity<sup>®</sup> VET

## High-resolution CBCT scanner for veterinary 3D imaging

The Planmed Verity<sup>®</sup> VET is a stand-alone cone beam CT scanner designed especially for veterinary imaging. It provides highly accurate submillimeter-resolution volumetric images of the animal's bony structures, such as the teeth, skull and extremities. Its detailed 3D images enable accurate diagnosis and treatment planning.



### **Excellent image quality**

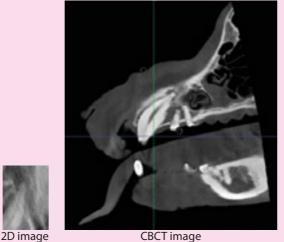
Planmed Verity<sup>®</sup> VET provides highly accurate submillimeter-resolution 3D images of the patient's anatomy. The CBCT scanner is designed to find even the smallest pathologies and fractures in the animal's bony structures.

With Planmed Verity VET CBCT scanner, the patient's teeth, skull and extremities are captured accurately in 3D for diagnosis and treatment planning. Although digital radiography and ultrasound devices are also helpful in treating patients, these imaging modalities are fundamentally limited compared to 3D imaging as they produce 2-dimensional projections of the 3-dimensional anatomy.

Furthermore, the innovative imaging protocols of Planmed Verity VET allows reducing the scanner's already low effective patient doses without compromising diagnostic image quality.

### Why choose Cone Beam Computed Tomography for veterinary radiography?

- · Cone Beam Computed Tomography (CBCT) provides anatomically accurate 3D images for assessment and treatment planning.
- The thin, sharp image slices of CBCT images are more detailed than conventional X-ray images, which only provide simple 2D information.
- The fast scanning process of the CBCT scanner reduces time under anesthesia as the image is captured in less than a minute, thus being more comfortable for the patient while allowing more time for treatment.
- · 3D images can also be used in the discussion with the animal owner to visualize the conditions and treatment options.
- Perfect for the use on animals of different shapes and sizes particularly suitable for imaging brachycephalic animals.



CBCT image



### **Easy imaging and diagnosis**

Planmed Verity VET is equipped with an easy-to-use graphical user interface and accompanied by a dedicated workstation for viewing the captured images from all angles in Planmeca Romexis® veterinary imaging software. The mobile positioning table of the scanner enables precise, fast and effortless image acquisition of the patient's teeth, skull and extremities.



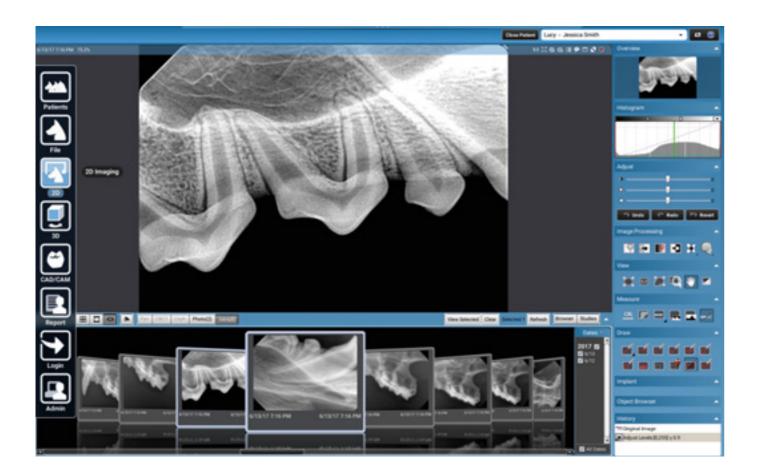
### **Compact and mobile**

The easy-to-move and compact Planmed Verity VET scanner brings 3D imaging directly to where the patient is and can be accessed easily when needed. When not in use, the mobile scanner is easy to move around and store in another location. Its mobility also enables flexible room design solutions even when space is limited.

## Planmeca Romexis®

## Advanced software for all veterinary imaging needs

*Planmeca Romexis*<sup>®</sup> is a comprehensive and intuitive software with features and functionalities designed especially for veterinary needs.



### All-in-one software

**Planmeca Romexis**<sup>®</sup> is the software of choice for viewing and processing 2D and 3D images. With its complete set of tools for image viewing, enhancement, measurement, drawing, and annotations, Planmeca Romexis improves the diagnostic value of radiographs.

### Streamlined imaging with imaging templates

With Planmeca Romexis, taking a full intraoral mouth series is easy. The software numbers the acquired images automatically and places them in their predetermined slots in the correct order and with the right orientation. The software supports teeth numbering for both cats and dogs.

### **Open and compatible**

Planmeca Romexis is an open software platform which integrates directly with practice management software. All images can be imported and exported in standard image formats. A full DICOM compatibility allows connecting to hospital imaging systems, while third party image plate scanners and digital cameras can be connected via the TWAIN interface.

### Practical patient record system

Planmeca Romexis patient record cards are designed especially for veterinary use. Register both patient and owner information to make full use of the record system and its search functionalities.

### **Sharing results**

Easily transfer images and consult your colleagues via the **Planmeca Romexis® Cloud** service. Share images and expertise securely with all partners who use Planmeca Romexis, **Planmeca Romexis® Viewer**, or the **Planmeca mRomexis™** mobile application.

Download the free Planmeca Romexis Viewer application for Mac and Windows from planmeca.com/viewer

Download the Planmeca mRomexis mobile application for iOS and Android from the App Store or Google Play.



Alongside owner information the system also enables registering patient information, including the species of the patient.

### **Key features:**

- Software for all 2D and 3D imaging and CAD/CAM needs
- Open software solution
- For Mac and Windows
- Compatible with third party devices such as digital cameras and plate scanners

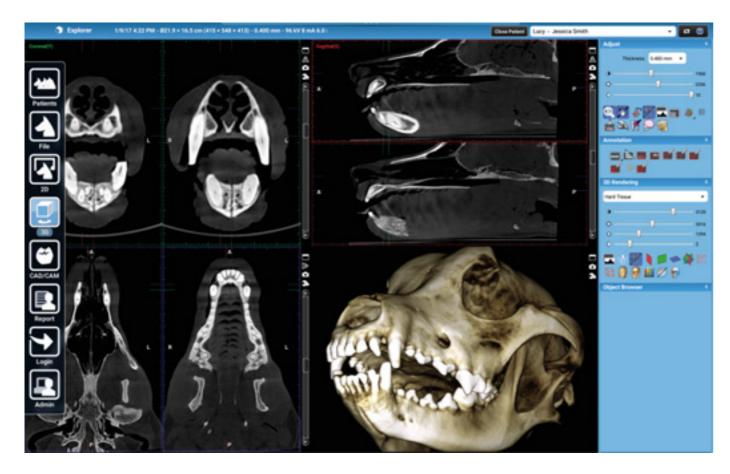
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## Planmeca Romexis®

Specially designed tools for 3D diagnostics

Planmeca Romexis<sup>®</sup> provides a rich set of tools for advanced 3D diagnostics and treatment planning. 3D images are processed in the same platform as 2D images, which makes using the software easy and effortless.



#### **Superior visualisation**

CBCT images offer clear visualisations which give you an instant overview of the patient's anatomy. The 3D image is easy to navigate and can be cut and sliced in all possible ways to analyse the inner anatomical structures.

#### Advanced 3D treatment planning

Planmeca Romexis® 3D includes many advanced features for diagnosis such as measurement tools for lengths, angles, and volumes, annotation tools and tools for segmenting an individual tooth from a 3D image. The software also allows comparing 3D images captured at different times in a way which enables observing possible changes in the anatomy.

#### Smooth communication

Planmeca Romexis 3D makes it easy to communicate with both the patient's owner and treatment team. 3D images can be sent securely using the Planmeca Romexis® Cloud service or burned onto a DVD with Planmeca Romexis® Viewer. Create 2D images of the acquired 3D images and print images directly from the software.

## Planmeca ProModel<sup>™</sup> Individual implants and surgical 3D models

Planmeca ProModel<sup>™</sup> service offers virtual surgical planning, patient-specific implants, surgical guides and CBCT-based anatomical models for demanding surgical procedures and veterinary treatment planning.



### Precise fit with individual design

The Planmeca ProModel<sup>™</sup> service designs and manufactures implants to match individual form, ensuring an exact fit to the patient's anatomy. The service also includes 3D printed anatomical models and surgical guides for planning and performing surgery.

#### Improved patient safety

Compared to conventional methods, the 3D products manufactured by Planmeca ProModel can both reduce operation times and improve the accuracy of the surgical procedure. This means safer procedures, shorter recovery times, and better aesthetic results - as well as reduced overall costs for the clinic.

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## Planmeca Compact<sup>™</sup> i5

### Customisable dental unit for all needs

The **Planmeca Compact**<sup>™</sup> **i5** dental unit makes everyday work easy and efficient. It is the perfect fit for all purposes – from entry-level to specialist needs.

### **Perfectly balanced**

### **Reliable infection control**

Planmeca Compact<sup>™</sup> i5 provides the ideal solution for any clinic, from small practices to large hospitals and university clinics. Silent and extremely compact in size, the unit is packed with great features that provide optimal ergonomics for everyday use.

### Wide instrument range

A wide instrument range ensures that all your needs are met. Scalers are available with or without LED. The dental unit can be connected to tap or bottle for clean water. The smooth, uniform surfaces of our dental unit make it easy to clean, ensuring impeccable external infection control – a crucial element of safe veterinary dental treatments. The powder-coated epoxy surfaces are extremely durable and resistant to cleaning agents. All critical components can also be autoclaved.

#### **Key features:**

- Five instrument positions
- Can be connected to tap or bottle for water
- Adjustable height
- · Silent unit increases user comfort



### **Clever add-ons**

and colour temperature.

Planmeca Romexis®.

 $\Lambda$ 

### Planmeca Solanna® operating light

The uniform light field of **Planmeca Solanna**<sup>®</sup> offers perfect visibility over the entire treatment area with easily adjustable brightness

### Handpieces for easy access and use

The comprehensive selection of handpieces provides the perfect tools for accessing places otherwise hard to reach. The non-circular profile offers enhanced stability, precision, and orientation.

### Planmeca Somia<sup>™</sup> intraoral camera

**Planmeca Somia™** is a light and slender intraoral camera that facilitates image documentation. Because of its small size and user-friendly operation, all areas in the animal's mouth can be easily reached. The images can also be saved to the patient database in

### Planmeca Olo<sup>™</sup> saddle stool

**Planmeca Olo™** enables a natural sitting position during treatment sessions. The height of the stool is easy to adjust while the incomplete circle shape of the foot ring allows close proximity to the patient as well as other stools. The exceptional design also features handles.

### Planmeca Lumo™ dental stool

Anatomically designed **Planmeca Lumo<sup>™</sup>** dental stool is an excellent ergonomic choice for veterinarian dentists. Its smoothly rotating wheels and multitude of adjustment possibilities ensure optimal working positions for users of all heights and sizes. The stool provides outstanding support and comfort even during the longest workdays.



## LM-Dental hand instruments

### Veterinary dental instruments with ergonomic design

LM-Dental veterinary dental instruments are designed to meet the varying needs of veterinarian dentistry. The high-quality instruments with an ergonomic handle design function well in all clinical procedures. Some of the instruments also completely sharpening-free.

### **Ergonomic design**

Ergonomics is a core principle of LM-Dental's product development. The elastic silicone coating guarantees a light, non-slip grip, while the lightweight construction makes every instrument easy to hold.

### **Easy traceability**

Clear color-coding together with name and product code number on the handle eases the identification of the veterinary instruments during clinical procedures and maintenance. Moreover, an intelligent RFID-chip can be integrated into the **ErgoSense™** instrument handle to efficiently trace, track, monitor, and control the instruments and materials at the clinic using the **LM Dental Tracking System™** (DTS).

### Lasting sharpness

Sharp Diamond<sup>™</sup> is LM-Dental's range of revolutionary periodontal instruments for lasting and superior sharpness. Thanks to their micro-membrane coating, the Sharp Diamond instruments are completely sharpening free.

### Key features

• Lightweight st

Traceability with the second sec

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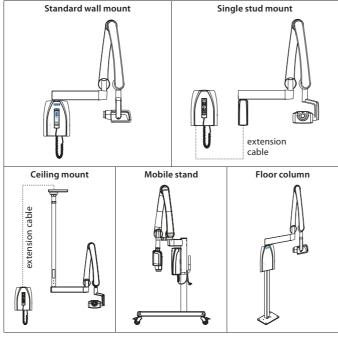
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tructure and large handle diameter
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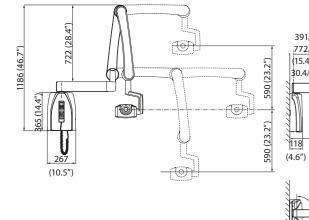
## Technical specifications

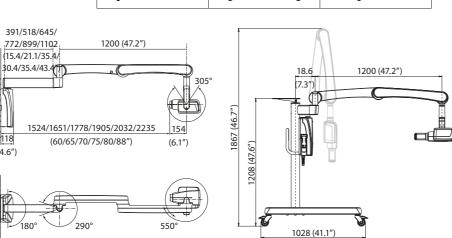
### Planmeca ProX™

Generator	Constant potential, microprocessor controlled,
	operating frequency 66 kHz
X-ray tube	Toshiba D-041SB
Focal spot size	0.4 mm according to IEC 60336
Cone diameter	60 mm (2.36 in.)
	Rectangular 36 x 45 mm (1.42 x 1.77 in.)
Max. symmetrical	Ø60 mm at SSD 200 mm
radiation field	Ø60 mm at SSD 300 mm according to IEC 806
Total filtration	min. 2.5 mm Al equivalent at 70 kV
	according to IEC 60522
Inherent filtration	1 mm Al equivalent at 70 kV
	according to IEC 60522
Anode voltage	60, 63, 66, 70 kV
Anode current	8, 7, 6, 5, 4, 3, 2 mA
Exposure times	0.01-2 sec., 24 steps
SSD (Source-Skin	200 mm (8 in.)/300 mm (12 in.)
Distance) Standard/	
Long	
Mains voltage	100 V~/110-115 V~/220-240 V~, 50/60 Hz
Duty cycle	1:13.5
Electrical classification	Class I Type B
Weight	total 29 kg (64 lbs)
	tube head with standard cone 4.2 kg (9.3 lbs)
	tube head with long cone 4.5 kg (10 lbs)
Colour	White (RAL 9016)



C€0598 MD Planmeca ProX





### Planmeca ProSensor® HD

	Size 0	Size 1	Size 2
Sensor size	33.6 x 23.4 mm (1.33 x 0.92 in.)	39.7 x 25.1 mm (1.56 x 0.99 in.)	44.1 x 30.4 mm (1.76 x 1.2 in.)
Active area	25.5 x 18.9 mm (1.0 x 0.74 in.)	30.6 x 20.7 mm (1.20 x 0.81 in.)	36 x 26.1 mm (1.42 x 1.03 in.)
Number of pixels, normal	850 x 629 px	1020 x 690 px	1200 x 870 px
Number of pixels, high	1700 x 1258 px	2040 x 1380 px	2400 x 1740 px
Pixel size, normal	30 µm x 30 µm		
Pixel size, high	15 μm x 15 μm		
Theoretical resolution	33 lp/mm		
Resolution, normal	17 lp/mm		
Resolution, high	>20 lp/mm		
Interface	USB or Ethernet		
View delay <5 sec.			

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C € 0598 MD Planmeca ProSensor HD

### Planmeca ProScanner<sup>®</sup> 2.0

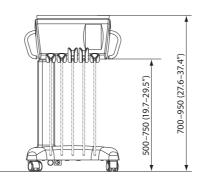
	Size 0	Size 1	Size 2
Imaging plate size	35 x 22 mm (1.38 x 0.87 in.)	40 x 24 mm (1.57 x 0.94 in.)	41 x 31 mm (1.61 x 1.22 in.)
Pixel size	30 µm		
True resolution	12 lp/mm		
Theoretical resolution	16.7 lp/mm		
Bits per pixel / Gray scale	16 bit / 65538		
Weight	4 kg (8.8 lbs)		
Dimensions (H x W x D)	231 x 167 x 216 mm (9.1 x 6.6 x 8.5 in.)		
Connection	Ethernet RJ45		
Operating voltage	Operating voltage 100–240 VAC, 50/60 Hz		
Interfaces	Network		
Eraser			

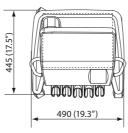
CEMD Planmeca ProScanner 2.0

### Planmeca Compact<sup>™</sup> i5

Delivery system	Mobile cart delivery with hanging tube instruments
Mains frequency	50/60 Hz
Frame	Cast aluminium alloy
Water inlet pressure	300-900 kPa (43-130 psi)
Air inlet pressure	550-900 kPa (80-130 psi)

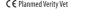
C€0598 MD Planmeca Compact i5

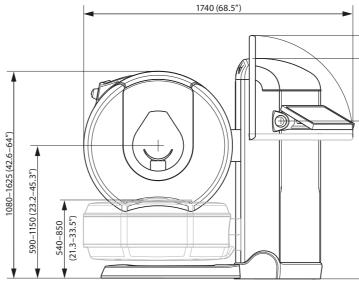




### Planmeca Verity<sup>®</sup> VET

	*	
X-ray beam	Cone	
Anode voltage	80–96 kV	
Anode current	2.4–12 mA	
Focal spot	0.6 mm, fixed anode	
Image detector	Flat panel	
Gray scale	14 Bit	
Detector resolution	1575 x 1969 pixel, pixel size 127 μm x 127 μm	
Image acquisition	210 degree rotation	
Scan time	18 s, pulsed X-ray	
Reconstruction time	30–120 s	
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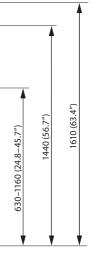




### Planmeca Romexis®

Supported 2D modalities	Intraoral
	Panoramic
	Cephalometric
	2D linear tomography
	Photos
	Stack images (CBCT slices and panoramic slices)
Supported 3D modalities	3D CBCT
	3D photo
	3D surface scan
Supported photo sources	Intraoral camera
	Digital camera or scanner (import or TWAIN capture)
Operating systems	Windows 8.1 Pro (64 bit) / Windows 10 Pro (64 bit)
	Windows Server 2012 to Windows Server 2019
	macOS Mojave (10.14)* / macOS Catalina (10.15)*
	For detailed information please see system requirements of Planmeca Romexis www.planmeca.com
	*The Cephalometric Analysis module, 3D Ortho Studio module and Planmeca PlanCAD Easy are only supported on Windows operating systems.
Image formats	JPEG or TIFF (2D images)
	DICOM (2D and 3D images)
	STL, OBJ, PLY (3D surface models)
	DICOM, TIFF, JPEG, PNG, BMP, STL, PLY (imports/exports)
Image size	2D X-ray image: 1–9 MB
	3D X-ray image: typically 50 MB-1 GB
Installation options	Client–Server
DICOM 3.0 support	DICOM Import and Export
	DICOM DIR Media Storage
Interfaces	TWAIN Client
	PMBridge (patient information and images)
	VDDS (patient information and images)
	InfoCarrier (patient information)
<sup>rd</sup> party software ntegrations	Dolphin Imaging
	NobelClinician
	Simplant
	Straumann coDiagnostiX
	Cybermed N-Liten
	3D Diagnostics service
	360imaging service

C € 0598 MD Planmeca Romexis





Planmeca designs and manufactures a full line of industry-leading dental and medical equipment, including 3D and 2D imaging devices, CAD/CAM solutions, dental care units, and software. Planmeca Oy, the parent company of the Finnish Planmeca Group, is strongly committed to better care through innovation, and it is the largest privately held company in the field.

Follow us on social media!

### **PLANMECA** GROUP

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Planmeca, All in one, Anatomat Plus, Cobra, Comfy, Digital perfection, Economat Plus, Elegant, Flexy, Perio Fresh, PlanEasyMill, Planmeca 4D, Planmeca AINO, Planmeca ARA, Planmeca CAD/CAM, Planmeca CALM, Planmeca Cariosity, Planmeca Chair, Planmeca Compact, Planmeca Creo, Planmeca Emerald, Planmeca FIT, Planmeca Intra, Planmeca PlanCAM, Planmeca PlanCeAM, Planmeca PlanCea, Planmeca PlanDesk, Planmeca PlanDesk, Planmeca PlanDesk, Planmeca Planmeca PlanSil, Planmeca PlanDesk, Planmeca PlanCeA, Planmeca Planosil, Planmeca Planmeca PlanDesk, Planmeca ProMax, Planmeca ProNameca ProSensor, Planmeca PlanDesk, Planmeca Serenus, Planmeca SingLED, Planmeca ProSensor, Planmeca ProX, Planmeca Romexis, Planmeca Serenus, Planmeca SingLED, Planmeca SingLED, Planmeca SingLED, Planmeca Viso, Planm