

Cone Beam 3D Imaging  
**NewTom**  
what's next



Making Your Life Better.

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# NewTom X-PSP COMFORT.VISION

CR SYSTEM FOR INTRAORAL X-RAYS



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## HIGH DEFINITION CONVENIENCE.

Ultra-high image quality - which remains a defining feature of the entire range - is combined with the practicality and convenience of film thanks to the CR system for X-PSP intraoral X-rays developed by NewTom.

NewTom X-PSP is the CR (Computed Radiography) system that combines advanced digital diagnostic technology with the advantages of traditional film plates. Stylish and compact, the system is fast and simple to use. In just a few seconds, the X-PSP reader can import and digitalize every image from the relative phosphorous film plates in rapid sequence, allowing their immediate display on PC or, via the app, on an iPad. Images are high resolution, a must for reliable diagnosis.

Thin and ergonomic, but with the advantages of digital sensors, phosphorous film plates are simple to position and comfortable for patients. AUTO-READ technology allows automatic recognition of plate size; this means plates can be inserted without having to act manually on the reader to adjust slot width.

Moreover, adaptive Multi-User Technology also simplifies the acquisition phase when the surgery performs X-rays on different patients in the same time frame in Multi-User mode.



### VERSATILITY

Four different sizes and adaptive filters for multi-level display ensure versatility and a broad diagnostics scope.



### HI-TECH RELIABILITY

Hi.Res technology (17 lp/mm): provides accurate high definition images with outstanding contrast, ensuring reliable diagnosis.



### ERGONOMICS

The simplicity of film and a design that optimises ergonomics, combined with the quality and speed of digital.



### CONNECTIVITY

The software dialogues with management systems, streamlines data sharing directly in DICOM and optimises Multi-User workflows.



# CUTTING-EDGE VERSATILITY AND QUALITY.

High quality images in every application thanks to Adaptive MultiVision mode which uses innovative filters to optimise image yield.

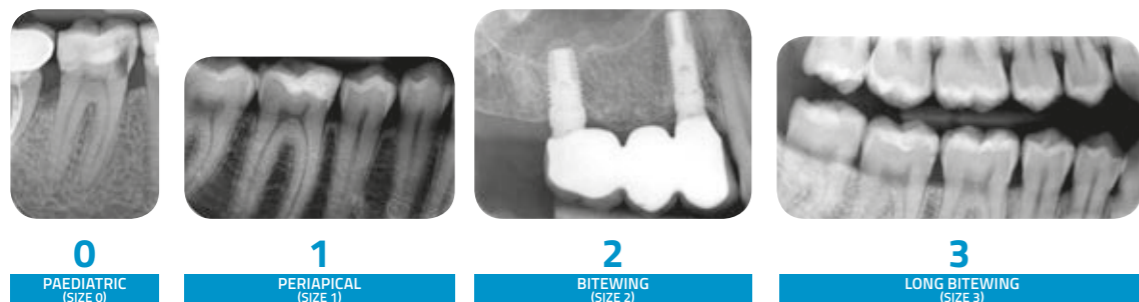
The X-PSP system is the ideal tool for all clinical dental applications: endodontics, prostheses and implant surgery, periodontics and caries diagnosis. It reliably provides the very best high definition images with a resolution of 34 pixel/mm.

Once the plate of the selected size is positioned in the oral cavity, the X-rays are taken and, where applicable, the network-linked reader is reserved.

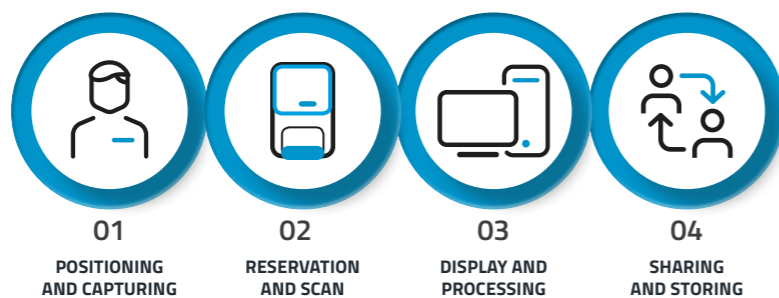
Inserting the plates in the reader one at a time, the high definition images are acquired and then transferred to the local PC and/or sent to the client who reserved the reader; images can immediately be consulted, shared and saved with NNT software or another viewer, printed and e-mailed.

## COMPLETE RANGE OF DENTAL DIAGNOSTIC APPLICATIONS

Compatible with 4 sizes for the acquisition of images with a pixel size of 30µm.



## WORKFLOW OPTIMISATION



## NEWTOM ADAPTIVE MULTIVISION

Innovative NewTom ApT (Adaptive Picture Treatment) filters have been developed to allow ever-more effective, accurately targeted diagnosis. Thanks to proprietary algorithms optimized for phosphor film plates, this function provides, with each acquisition, a set of images (up to 5) that has been specifically improved to highlight anatomical details with different levels of sharpness.

With NNT software, X-PSP lets the dentist adopt more advanced, versatile image processing filters in Adaptive MultiVision mode.



## ERGONOMIC AND VERSATILE.

Compact and well designed, X-PSP applies automatic plate size recognition technology to speed up the acquisition process.

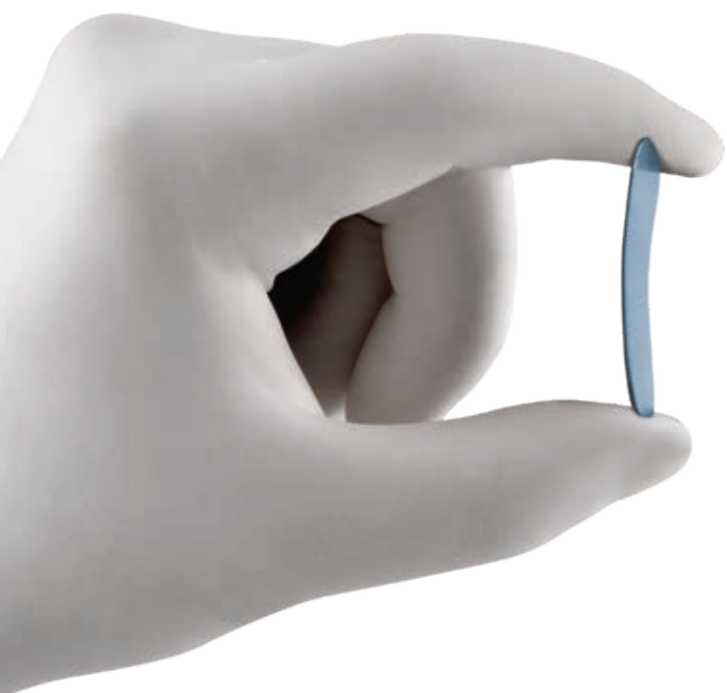
Designed to take up as little surgery space as possible, the X-PSP reader can be installed in the position that best suits the personnel. The removable drawer has been designed to maximise reader compactness also when it is installed and the 45° angle of the upper part of the device makes plate insertion easier.

Phosphor plates ensure the same flexibility of use and comfort as dental film. They also have the clear advantage of being reusable and ensuring excellent, long-lasting diagnostic quality.

Compared to traditional film, the X-PSP system offers the advantage of fast image display directly in digital format, zero processing costs and greater workflow efficiency.

### SMART ACQUISITION (AUTO-READ TECHNOLOGY)

The plate consists of a phosphor layer and a magnetic layer that speeds up the reading process with an automatic acquisition sequence start. Plate size recognition is also automatic; the plate is extracted from its protective wrapping inside the reader, shielding it from any exposure to light or hand contact. The highly dynamic system and the correction of any over- or under-exposure minimise the risk of having to do a rescans.



### BETTER ERGONOMICS

Thin, flexible and without any positioning limits, the plates have 100%-equivalent active area.

### ECO DOSE

Thanks to ultra-high plate sensitivity, images of optimum quality can be captured with minimum X-ray doses.



### WALL-MOUNT OPTION

The X-PSP is suitable for any surgery. It can be placed on a horizontal worktop or wall-mounted with a bracket.

### STATUS LED

A luminous indicator positioned above the plate slot provides instantaneous information on reader status.

### ETHERNET CONNECTION

Trasferimento rapido e sicuro delle immagini al PC accanto alla postazione di lavoro o direttamente dal server con adaptive Multi-User Technology.

### REMOVABLE DRAWER

Lets users collect and carry the just-used plates with ease.

### PLATE HOLDER ORGANIZER

Solution allowing tidy storage of plates until they are ready to be used.



### AUTO-READ TECHNOLOGY

X-PSP auto-read technology ensures fully automatic acceptance and scanning of exposed plates. To maximise efficiency, the system recognises the size, imports the image into the PC and deletes plate data so it is ready for the next acquisition.

### FAST IMAGE DISPLAY

The X-PSP ensures ultra-fast display of images that are always sharp. This increases diagnostic efficiency and enhances dentist-patient communication.



# NNT CONNECTIVITY.

Maximum connectivity and integration thanks to the modern systems adopted by NewTom. Ever-simpler, better-performing clinical and diagnostic workflows.

A fully automated workflow for fast diagnosis. Import data from any LAN workstation thanks to the ETHERNET connection.

Saves and displays captured images on the PC using NNT - the all-in-one dental diagnostic software - with the convenient iPad viewer app or with any other control programme or image viewer with a TWAIN or DICOM interface.

## INTERFACE WITH MANAGEMENT SYSTEMS

An open system designed for fast, efficient interfacing with the main dental surgery management software solutions via various standard (VDDS, TWAIN) and/or proprietary (NNTBridge) modes. IHE conformity allows communication with RIS/PACS systems and DICOM printers. Complete set of services available: Print, Worklist, Storage Commitment, MPPS and Query/Retrieve.

## REMOTE ASSISTANCE

Configuring the X-PSP to use the surgery's internet connection makes it possible to monitor the device and perform any remote technical servicing.

## IMAGE SHARING

Exams can be shared with colleagues and patients by providing the display programme on CD, DVD or a USB storage device.

## MULTI-STATION DISPLAY AND PROCESSING

Image storage on a shared database in a local network that is accessible from any workstation or iPad. Management of multiple archives and access to password-protected data.



## ADAPTIVE MULTI-USER TECHNOLOGY (aMUT)

X-PSP optimises workflows in multi-room dental surgeries. Thanks to adaptive Multi-User Technology, the remote read system (connected to the server) can be managed with reservations made directly from the workstation alongside the patient chair (client PC). The patient is defined by a name and the colour of the surgery. Available in iCapture, an app automatically saves a series of remotely scanned images in the medical record of the patient pre-selected in NNT from the surgery from which the reservation is made. These images will be displayed immediately on the PC next to the patient.



in accordance with  
EN ISO/IEC 17065:2012

### NNT: CERTIFIED SOFTWARE

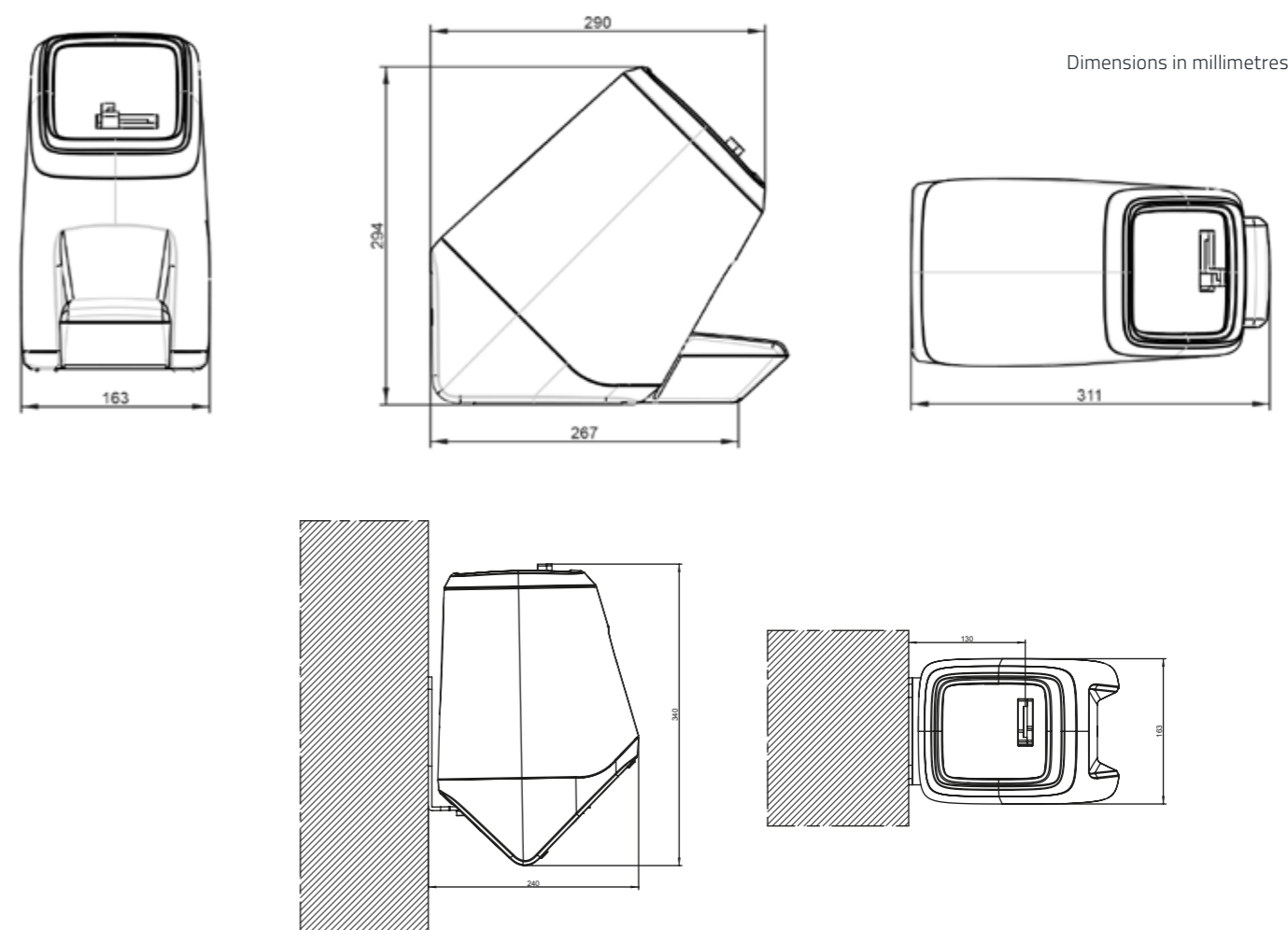
NNT has been granted the ISDP® 10003 international scheme for data protection certification, to assess compliance with the European Regulation 2016/679 concerning the protection of individuals with regard to the processing of personal data.

# TECHNICAL SPECIFICATIONS.

Resolution (theoretical)	17 lp/mm
Image pixel size	30µm
Image grey levels	16 bit (65,536 grey levels)
Supported plate sizes	Size 0, 1, 2, 3.
Plate size selection	Automatic
Read time	4 – 8 s
Plate deletion	Automatic
Dimensions (H x L x D)	224 x 163 x 290 mm
Weight	5.6 kg
Power supply	110 - 240 V 50/60 Hz (24 Watts)
Connectivity	ETHERNET direct to PC or in LAN
Acquisition software (for PC)	iCapture with aMUT interface for third party software
Image management software (for PC)	NNT (complies with ISDP®10003:2018 as per EN ISO/IEC 17065:2012 certificate number 2019003109-1) and App iPad NNT viewer (free)
Supported protocols	DICOM 3.0, TWAIN, VDDS
DICOM nodes	IHE compliant (Print; Storage Commitment, SR document; WorkList; MPPS; Query/Retrieve)

## MINIMUM SYSTEM REQUIREMENTS

Supported operating systems	Microsoft® Windows® 10 Professional 64 bit
Display settings	1280 x 1024; 1344 x 768 or greater, 16 million colours
Port	PC Server: RJ 45   PC Client connected in LAN



Size 0  
22 x 31 mm  
Pixels  
762 x 1024  
Memory size  
1 Mb



Size 1  
24 x 40 mm  
Pixels  
792 x 1321  
Memory size  
2 Mb



Size 2  
31 x 41 mm  
Pixels  
1024 x 1354  
Memory size  
3 Mb



Size 3  
27 x 54 mm  
Pixels  
891 x 1783  
Memory size  
4 Mb