

CASTELLINI
PASSION FOR DENTISTRY

Since 1935



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CXVDCB251S00 07/2025
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CASTELLINI

IMAGING
X-VISUS DCIS

EN

**MAKING
SPACE
FOR
EXCELLENCE**

X-VISUS DCIS

WIRELESS DIRECT CONVERSION INTRAORAL SENSOR



ERGONOMIC, EFFICIENT, LIMITLESS

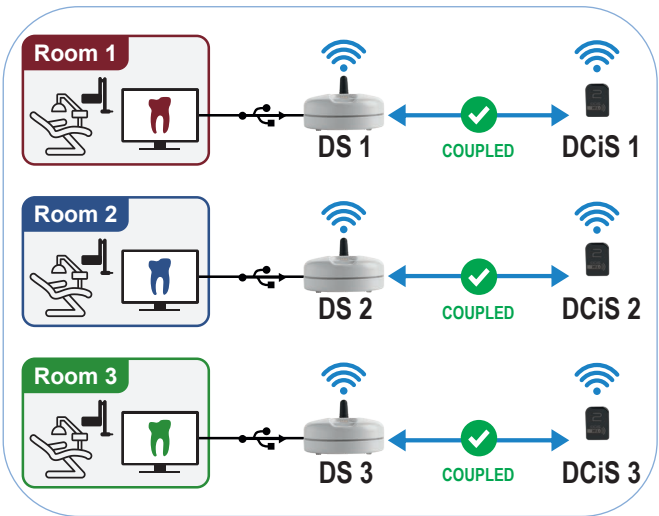
X-Visus DCiS is the first direct conversion wireless sensor. While ensuring patient comfort, it allows high resolution images to be obtained in mere moments and with low X-ray doses. Cable-free and with no easily breakable components, X-Visus DCiS is resistant to shocks, falls, dust and liquids. It guarantees fast and effective data transmission via Wireless, ideal for minimising consumption without affecting device performance in any way.



LIMITLESS SYSTEM

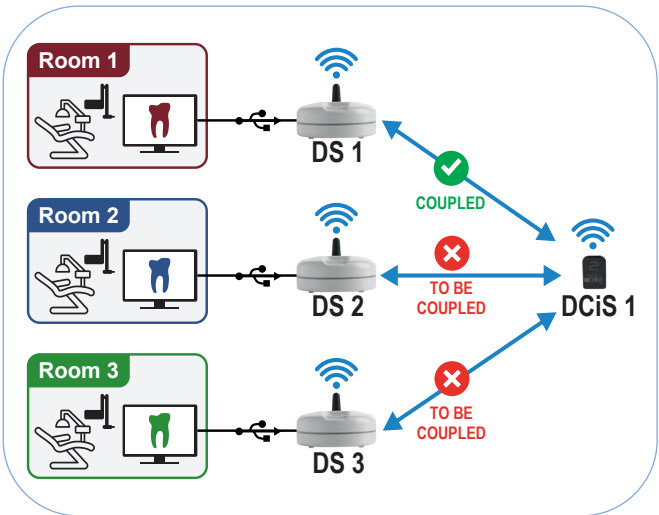
The sensor communicates with the docking station wirelessly via Wireless. This facilitates the operator's movements and translates into better patient comfort.

The docking station combined with the sensor acts as a charging base for the lithium battery of the device when it is not in use, while during the scanning phase it receives the X-ray image from the sensor in seconds and transfers it to the surgery PC/laptop to which it is connected through a plain USB connector; the doctor can then produce an immediate diagnosis while ensuring extremely effective communication with the patient.



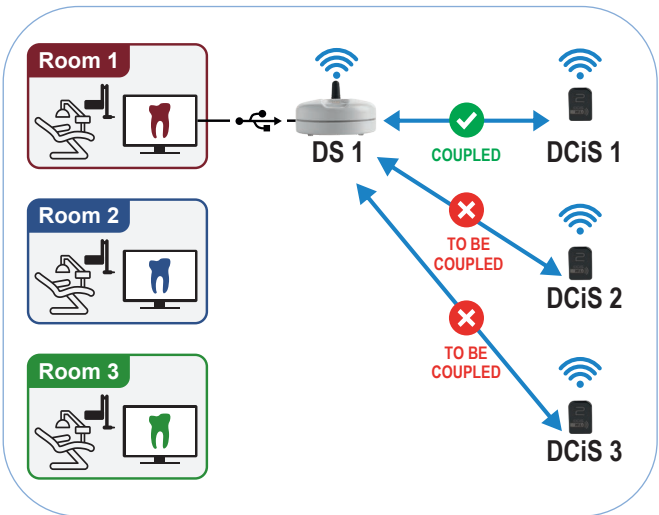
SCENARIO 1

Each room has its own docking station, and a sensor is paired with each docking station. Data transmission is therefore of the 1 to 1 type and simultaneous transmission is also a possibility.



SCENARIO 2

Each room has its own docking station, and all the docking stations receive data from one sensor. The sensor can interact with only one docking station at a time, as long as the user always remembers, before use, to place the sensor on the docking station to which the images obtained should be sent.

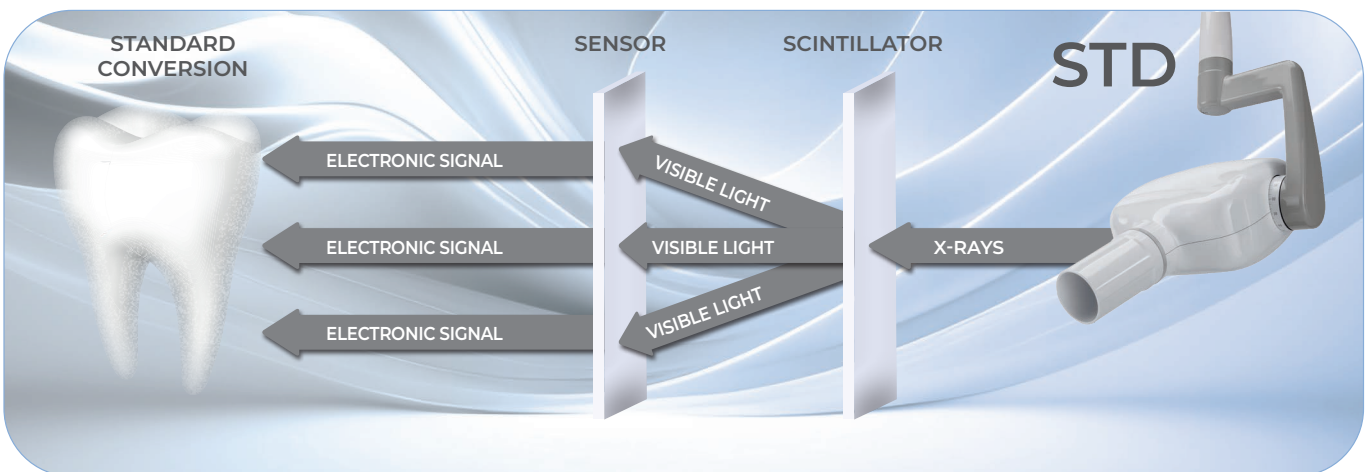
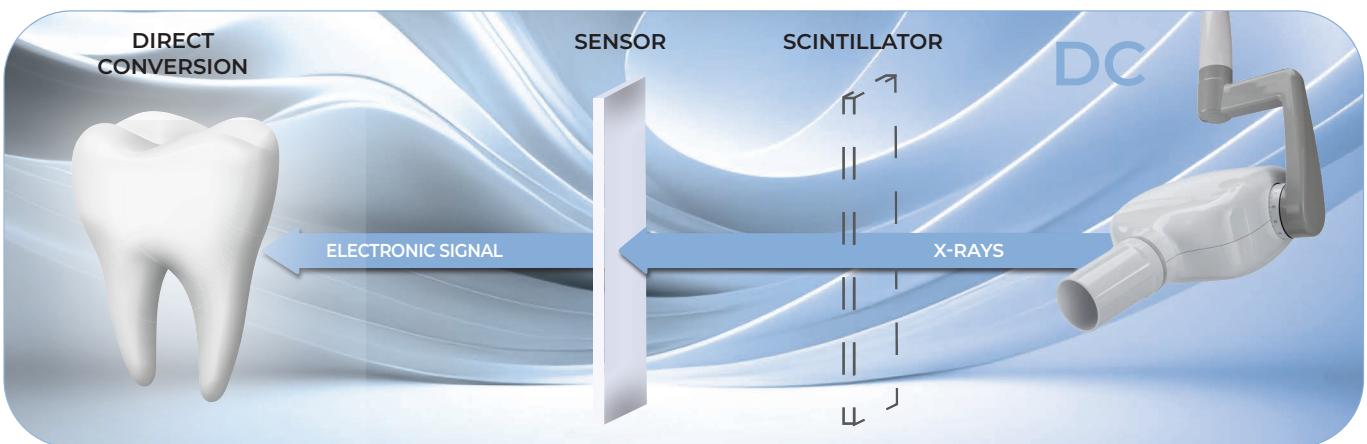


SCENARIO 3

Multiple sensors can be paired with a single docking station, but data transmission will always take place between a single docking station and the last sensor paired with it.

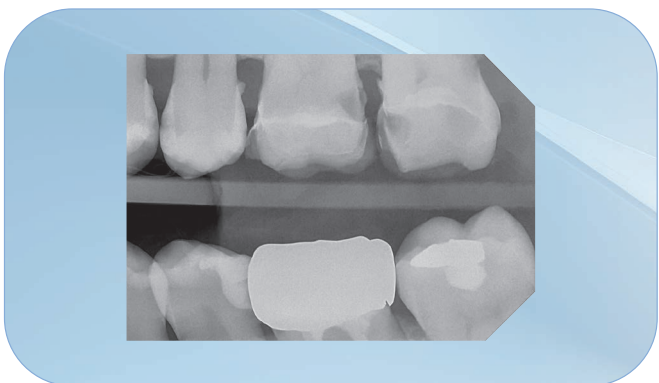
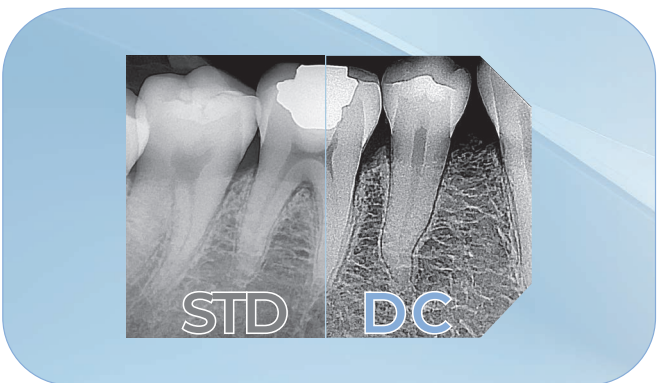
HIGHLY DETAILED CLINICAL IMAGES

X-Visus DCiS uses state-of-the-art intraoral technology: it is the first wireless sensor capable of making the most of the advantages offered by direct conversion to obtain even sharper and better contrasted X-ray images than traditional sensors - at low doses and with maximum efficiency.

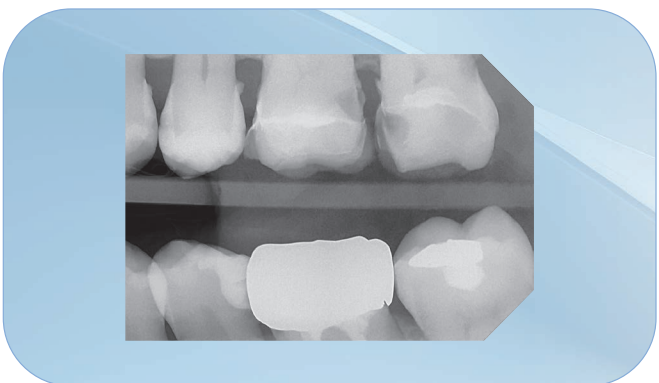


DIRECT CONVERSION

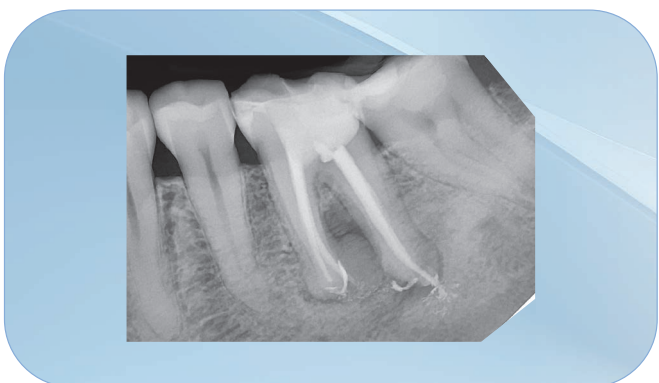
Unlike standard sensors, X-Visus DCiS implements direct conversion technology, which does not require the conversion of X-rays into visible light. The result is a sharper image with better contrast. In traditional sensors, the X-rays go through a scintillator and this results in a loss of information that makes the images less sharp. With X-Visus DCiS, however, the radiation is read by the sensor without any mediation, which makes for more detailed and legible imaging.



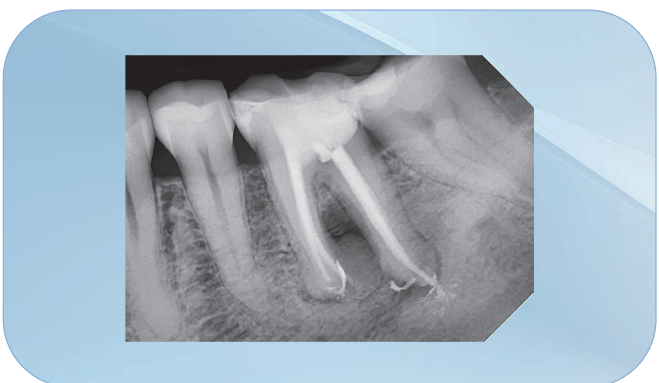
DEFAULT



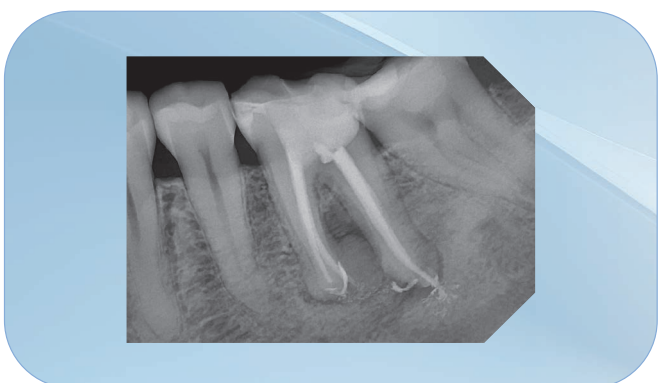
CARIES REVEALING



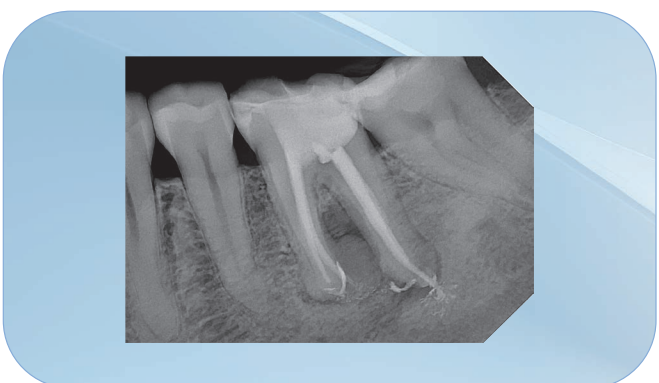
SOFT TISSUE PRESERVING



HIGH CONTRAST



DEFAULT



HIGH DETAILS

MultiLEVEL - FILTRI iES

Latest-generation X-Visus DCiS image processing software aims to improve diagnostics. With excellent image resolution and a user-friendly software interface, X-Visus DCiS makes reading intraoral images simpler and easier. The new CASTELLINI iES (Image Enhancement System) filters are the result of research that focuses on dentists' real needs.

Castellini iES (Image Enhancement System) filters highlight the different details of X-ray images according to specific clinical needs. In particular, in addition to using the default filter which has the task of balancing all the elements of

the image, it is possible to choose to better preserve the visibility of the soft tissues, increase the contrast or emphasize the details of the examined anatomical area.

Finally and exclusively for the bitewing examinations, the caries revealing filter highlight the presence of interproximal caries.

IN A CLASS OF ITS OWN

Available in Size 2 only, X-Visus DCiS is carefully designed down to the smallest detail to offer maximum comfort to the patient, while its dedicated accessories make it a unique tool available to every professional.



COMPACT AND HIGH PERFORMING

The device small size and rounded corners allow easy insertion into the patient's mouth. The active surface is very large, so as to optimize the device footprint.

Resistant to shocks, compressions, accidental falls, as well as the ingress of liquids and dust thanks to its IP67 degree of protection.



OPTIONAL ACCESSORIES

Alignment system that does not add bulk to the sensor profile, ensuring comfort for the patient during the examination, with accurate and close positioning to minimise the area exposed to X-rays. The focus is on patient needs and the best patient care.



Positioning and alignment system for X-ray imaging of incisors and/or canines, both upper and lower.



Positioning and alignment accessory for endodontic X-ray images of the entire dentition.



Positioning and alignment system for X-ray imaging of molars and/or premolars, both upper and lower.



Kit for vertical fixing of the docking station to the wall.



Positioning and alignment system for bitewing X-ray images of the entire dentition.



Kit for vertical fixing of the docking station to the wall.

TECHNICAL SPECIFICATIONS

DIMENSIONS	
Sensor size	2
Sensor footprint	43.4 mm (height) x 29.5 mm (width)
Sensor thickness	5.2 mm (9.2 mm considering the battery housing hub)
Active area	35.1 mm x 24.7 mm
Docking station	100 mm (diameter) x 62 mm (height)
USB lead length	2 m (supplied to connect docking station to PC/laptop)



IMAGE ACQUISITION	
Pixel matrix	1350 x 950 (1,282,500 pixel)
Detector	Single-crystal direct-conversion silicon / CMOS
MTF (Modulation Transfer Function)	> 70% @ 5 lp/mm, > 40% @10 lp/mm
Exposure parameters	0.1-0.5 s, 60-70 kV, 6/8 mA, 20 cm (8") cone
Wireless image transmission time	Less than 10 s under optimal working conditions

SENSOR TECHNICAL SPECIFICATIONS	
Internal battery	Rechargeable lithium ion (capacity 19 mAh)
Degree of protection	IP 67 (Guaranteed against liquid or dust infiltration)
Integrated RAM memory	4 MB (maximum 1 preservable image)
Image transmission technology	Wireless
Wireless operating distance	Up to 2.5 m from docking station
Compatibility with X-ray generators	Wall-mounted or cart (both AC and DC): 2-10 mA and 60-70 kV Portable: 2-10 mA and 60-70 kV
Complete recharge time	3.5 h (allows acquisition of 140* consecutive images, with a 40 s pause between two examinations)
Minimum advisable recharge time	15 minutes (allows acquisition of 19* consecutive images, with a 40 s pause between two examinations)

SOFTWARE	
Acquisition software (for PC)	iCapture with dedicated filters for third party software
Image management software (for PC)	iRYS (complies with ISDP©10003:2018 as per EN ISO/IEC17065:2012 certificate number 2019003109-2
Supported protocols	DICOM 3.0, TWAIN, VDDS
DICOM nodes	IHE compliant (Print; Storage Commitment, SR document; WorkList; MPPS; Query/Retrieve)

MINIMUM SYSTEM REQUISITES	
Supported operating systems	Windows® 10 Pro 64 bit - Windows® 11 Pro 64 bit
Processor	Intel Core i3, 10th generation (or higher)
Hard disk	100 GB 7200 RPM (250 GB SSD recommended)
RAM	4 GB (8 GB or superior recommended)
Graphics card	3D VideoCard 1 GB RAM (DirectX 11 / OpenCL v1.2 or later support)
Display	1920x1080 pixel 24bit RGB Full HD

COMMUNICATION INTERFACES	
Docking station connection port	USB-C
PC/laptop connection port	USB-A
Power supply	+5V ± 10%
Input power	2.5 W

* Values susceptible to a reduction in performance due to effective battery life (the battery must only be replaced by qualified technicians).