



# Create a premium DR room like no other

Philips DigitalDiagnost Digital Radiography Solutions

**PHILIPS**  
sense and simplicity

## Table of contents

DigitalDiagnost overall benefits	2-3
<b>Radiography rooms</b>	
DR High performance room	4-5
DR Flex room	6-7
DR Value room	8-9
DR Emergency room	10-11
DR Chest room	12-13
DR room to go	14-15
<b>Specific benefits</b>	
Eleva user interface	16-17
UNIQUE image processing	18-19
Fixed and wireless portable detectors including tray	20-21
Clinical images	22-23
Automatic image stitching, PCR Integration	24-25
Workflow movements, Ceiling suspension	26-27
Design, Ambient Experience	28-29
Information technology, Service	30-31



DR High performance room

4-5



DR Flex room

6-7



DR Value room

8-9



DR Emergency room

10-11



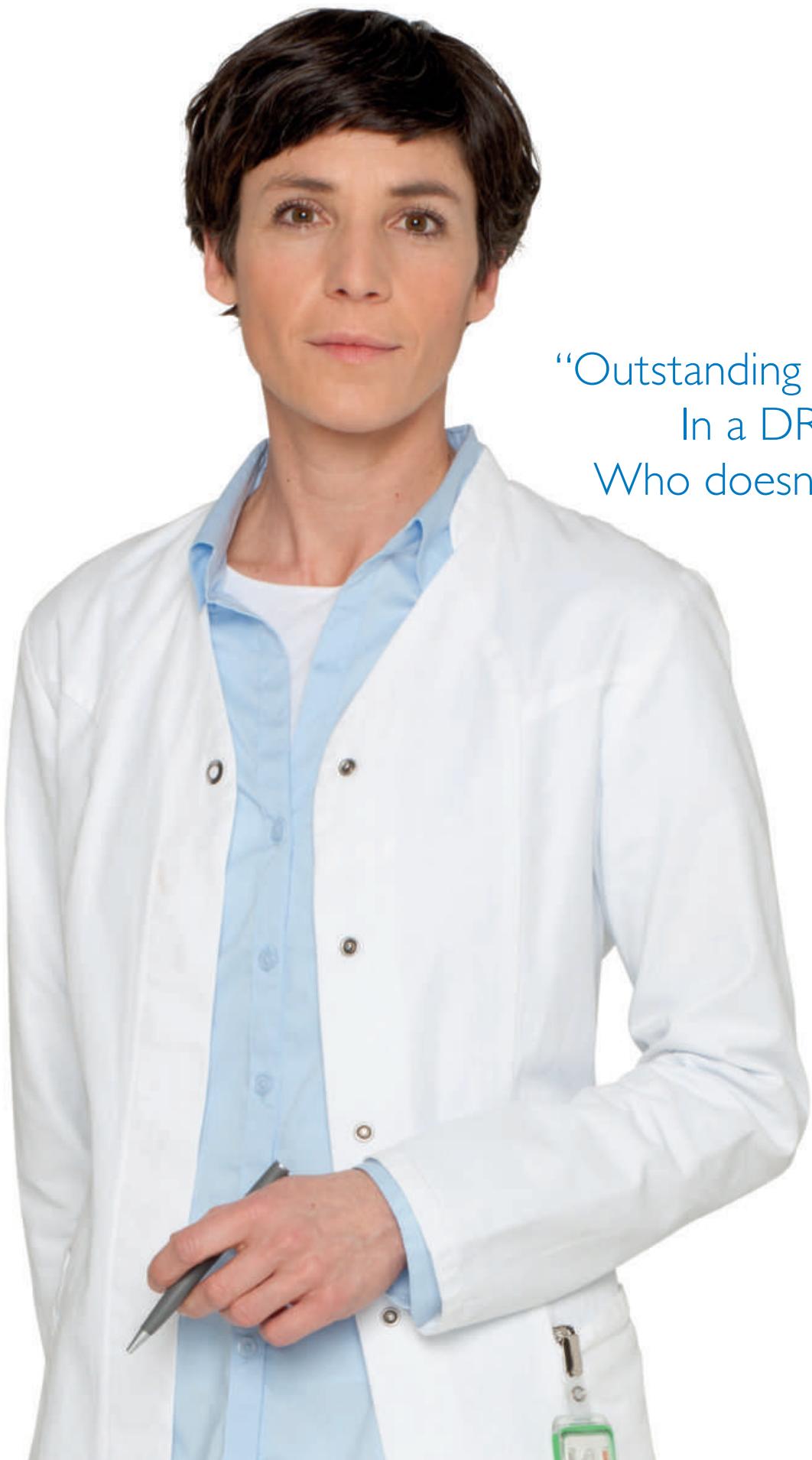
DR Chest room

12-13



DR room to go

14-15



“Outstanding images  
In a DR room  
Who doesn’t want

# Step into a new world of digital radiography

"I want to get the most out of my DR room." With more than 4,500 DigitalDiagnost systems installed, we keep setting the standard in high-end digital radiography, from exceptional performance and flexible rooms right through to a cutting edge emergency set-up. With the third full release of the DigitalDiagnost you get the configuration best suited to your application requirements, workflow and budget.

quickly.  
that works my way.  
that?"

## **Your economic value improves**

Whether it's a versatile single detector workhorse or multi-detector thoroughbred, all our scalable set-ups match your financial scope with your clinical needs. With a table and vertical stand featuring a tray for the wireless portable detector, our DR systems are an even better economic value. Plus, they come with the level of service you expect from Philips over the full lifecycle.

## **Your staff collaborates**

Fast, more confident decision making and a higher level of personalized processes. Philips supports this with the intuitive Eleva user interface. Easy to learn and use, Eleva provides harmonized workflow across X-ray systems, so technologists and radiologists can swiftly interact and provide more personalized patient care. UNIQUE image processing delivers outstanding digital images and does it fast to streamline clinical workflow.

## **Your patients cooperate**

The Eleva interface and our ergonomic components facilitates smooth, time-saving workflow so technologists can focus on the patient. Both our fixed and moveable vertical stands and flexible tables allow for comfortable positioning. Together with the wireless portable detector, you can cover the full range of exposures in vertical, horizontal and cross-lateral positions. Exams are done easier and may result in fewer retakes and a low X-ray dose for your patients.



# Feel the power of the premium DR room

"I need a DR room that can handle a very high patient load and do the complete range of examinations." Demand excellence from your digital radiography with a high performance room featuring the Philips exclusive moveable vertical stand and the integrated wireless portable detector in the table tray.



## High performance because ...

You can do exams on more than 250 patients a day, either with the customary fixed stand or with the highly versatile moveable vertical stand. The moveable vertical stand allows for efficient upright, cross-lateral and under the table exams and can switch rapidly from table to chest exams without having to reposition or move the patient. You can gain even more application variety with the optional wireless portable detector tray in the table. By taking the detector out of the tray you can use it for free exposures.

## Ready to work

The moveable vertical stand has a highly flexible multi-purpose arm, making multiple angle options and angulated beam projection possible. Its large detector, together with the wide table, allow easy automatic image stitching on the table or vertically in an upright position. Thanks to the five AEC exposure control chambers, patient movement can be reduced to facilitate a low patient X-ray dose.

## More scalability

Opt for a maximum-throughput configuration with fixed detectors in the vertical stand and in the table. To really increase the function of the room, you may choose up to three detectors, with fixed detectors in the vertical stand and table and a wireless portable detector for the added benefits of free exposures.



#### Your premium high performance room benefits

- High patient volume configuration for fast-paced hospitals and trauma environments
- Convenient workflow with the ergonomic moveable vertical stand
- Superb application variety with different detector options including wireless portable detector tray in table
- Explore in 3D:  
[www.philips.com/digital\\_radiography](http://www.philips.com/digital_radiography)





## Maximize flexibility with the premium DR room

"Our DR room has to do it all. We want total exam versatility while caring for quite a high number of patients." Adapt to the patient and respond to the clinical situation with easy handling and excellent ergonomics. This single-detector solution with moveable vertical stand and single side suspended table meets the complex demands of busy hospitals.

### **Flexible because ...**

The moveable vertical stand and single side suspended table with optional swivel puts every part of the patient into the exposure range. Application freedom comes with the moveable stand's multi-positional arm and the motorized system geometry.



### **Ready for anything**

Perform vertical, horizontal and seated exams as well as a wide range of difficult angulated views. Switch from under the table to chest positions with the press of a button. You'll find control panels on both sides of the detector for quick move-to-position and collimation adjustments. The patient information display makes the exam more personalized. Plus, the optional swivel of the single suspended table offers better access to patients in beds or wheelchairs.



### **More options**

You can also extend the versatility of this configuration with a wireless portable detector. Free exposures mean more application possibilities, especially for trauma and bed exams. The moveable trolley provides further access to patients and is height adjustable for easy patient transfer.



“One DR room that can get every angle,  
position and exposure?  
Yeah, in my dreams.”

#### **Your premium flex room benefits**

- Single detector solution with comparable capabilities as multi-detector room set ups
- Cover all the projections for a medium to high patient load – also in compact rooms
- System works around the patient for increased comfort
- Explore in 3D: [www.philips.com/digital\\_radiography](http://www.philips.com/digital_radiography)



# Optimize value with the premium DR room

"I want premium performance and DR versatility all in an economically worthwhile solution."

Equipped with a wireless portable detector and wireless trays, the value room is your entry into the world of premium digital radiography or serves as an additional DR room.



### Your premium value room benefits

- Attractively priced configuration for a wide variety of applications
- Five amplimat chambers for the wireless portable detector may reduce the risk of incorrect exposure and repeated images
- UNIQUE image processing and Eleva user interface provide seamless procedures
- Explore in 3D: [www.philips.com/digital\\_radiography](http://www.philips.com/digital_radiography)



### Value because ...

You get the radiography applications and procedures you need in a cost effective, one detector set-up. The height adjustable table and the vertical stand each have integrated wireless trays. The wireless portable detector can be moved between the table and the vertical stand and used for free exposures.

### Ready to use

With five AEC chambers you have more flexibility for positioning and less constraints for the patient. Enhance patient comfort further thanks to the eight-way floating, motorized table. Images are harmonized with UNIQUE image processing and can be sent over the hospital network via the intuitive Eleva user interface.

### More options

Like all our other room configurations, the value room has optional PCR integration, making it useful for exams requiring flexible cassettes and for automatic image stitching. What's more, you can make the most of the wireless portable detector with two optional detector holders.



"Since when did premium mean value?  
Sounds too good to be true."



# The premium DR room for emergency care

"Our busy ER is packed with people, machines and cables. In this environment we need a straightforward DR solution that delivers." Integrate a wireless DR system, exceptional for critical work in your emergency rooms, recovery bays and trauma centers – for expanded access to patients, leading to more timely diagnoses.



## **Emergency because ...**

The slim, cable-free design reduces interference with life support equipment such as tubes and catheters and may result in per-patient time savings. With just a ceiling suspension and a wireless portable detector, there is more room for emergency equipment and staff, and more space around the patient. You can even serve several trauma bays in parallel for faster workflow and improved patient access.

## **Ready to extend**

The ceiling suspension, with its four part telescopic column, features easy maneuverability and quick, one-handed operating. With longitudinal and transverse movements, images can be taken rapidly without moving the patient, especially lateral and oblique exposures. The rugged digital detector has a built-in handle for even better positioning and is cable-free, eliminating one source of costly infection. It expands the range of exposures, including lungs and post-op hips as well as control exams.

## **Accessories**

Use the wireless portable detector with a moveable holder or bed holder to reach every patient body area and minimize your physical involvement. Hygienic bags protect and shield the wireless portable detector from blood, water and other fluids, while click-on fixed grids are available in portrait or landscape orientation.





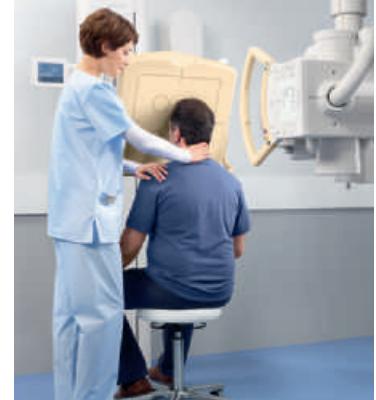
#### Your premium emergency room benefits

- Lessens interference with ER devices like tubes, catheters, oxygen
- Patients can be X-rayed without repositioning them
- Non cable-bound detector may lead to less infection risk
- Explore in 3D: [www.philips.com/digital\\_radiography](http://www.philips.com/digital_radiography)



## The premium DR room dedicated for chest

"We've got to put a lot of patients through our chest room. And we sometimes use it as a back-up solution to our main room." Your dedicated chest room can also be used as a versatile musculoskeletal digital radiography room. Rapidly do the full range of chest examinations, including in-bed and wheelchair exposures and also perform spine, skull and other extremity exams.



#### **Chest-dedicated because ...**

You can do more than 250 thorax images per day. The fixed vertical stand and ceiling suspension allow you to cover all your chest exposure needs. The tracking function maintains constant source-detector distance while the tube assembly automatically tracks the vertical movement of the detector. This may reduce the chance of retakes and speeds up workflow.

#### **Ready to adapt**

The tiltable vertical stand features motorized height adjustment and precise positioning with customizable pre-defined detector settings. Together with the angulated beam projection, exposures can be done vertically, horizontally and in upright sitting positions. The ergonomic tube control of the ceiling suspension provides all relevant information so you can easily perform exams close to the patient.

#### **More options**

The chest room can be configured with a wireless portable detector to take chest images in the patient bed or wheelchair. Other options include automatic image stitching and a display on the vertical stand.

#### **Your premium chest room benefits**

- Superb chest image quality to support diagnostic confidence
- Automatic geometry movements reduce physical involvement of technologists
- Optional wireless portable detector broadens the application scope
- Explore in 3D: [www.philips.com/digital\\_radiography](http://www.philips.com/digital_radiography)



# Access all areas with the premium DR room to go

"We have a lot of critical patients we can't move. A mobile DR solution would save us time and benefit our patients." The MobileDiagnost wDR packs the top-shelf features of the premium DigitalDiagnost DR room into a robust, flexible X-ray system to go. Technologists appreciate the clutter free positioning of the wireless MobileDiagnost wDR, while radiologists get rapid image access to support fast diagnoses.



### Your premium DR room to go benefits

- Access all areas with a flexible system suited for acute care
- Perform exams efficiently thanks to intuitive system handling
- Get excellent images within seconds to facilitate fast diagnoses
- Explore in 3D: [www.philips.com/digital\\_radiography](http://www.philips.com/digital_radiography)



### To go because ...

Using MobileDiagnost wDR you take the equipment to the patient and are able to make quicker decisions right where they're needed. Gain time through fast and easy positioning with the wireless portable detector and the flexible mobile unit with telescopic tube arm. Your premium DR room on wheels features an ample 40kW generator for challenging examinations and has the renowned Eleva interface and UNIQUE image processing on board. Plus, standard Wi-Fi technology provides seamless connectivity to the hospital network.

### Ready to move

Perfectly designed for a busy hospital setting, the MobileDiagnost wDR allows you to react swiftly and perform a multitude of examinations. No matter what the critical area, the MobileDiagnost wDR gets to where it's needed, aptly does the job, then moves on to the next task. It maneuvers in tight spaces and can be navigated through crowded areas with ease. Exams can be prepared, performed and completed in just three steps, combining highly efficient operation with rapid results.

### Accessories

With well designed accessories, procedures become easier, faster and more patient-friendly. Wireless detector holders allow you to work around the patient and minimize your physical involvement. Choose between click-on grids in portrait or landscape orientation for the wireless portable detector and transport it directly on the mobile unit. Hygienic bags protect and shield the wireless portable detector from blood, water and other fluids.



*"A reliable wireless mobile that  
can take superb images anywhere  
in the hospital. That's music to my ears."*



# The intuitive interface everyone can use

For busy medical facilities using a range of radiography and fluoroscopy imaging modalities, Eleva makes workflow continuity and network communication a whole lot easier. This one common platform is easy to learn and use, and is ideal for streamlining your radiography department.

### **One screen, so many uses**

The touchscreen design and intuitive layout of the Eleva user interface is ideally suited to busy facilities with a high radiography workload. The pre-settings and customized user profiles result in more automated workflow, with images available on the screen in just six seconds. Because it's so easy to use, you can put more focus on the patient. With clinical image thumbnails and intuitive image manipulation, exams can be finalized with just a few touches on the screen.

### **Saving technologist time**

Whether it's for DR, computed radiography, fluoroscopy or mammography, Eleva's advanced quality control software helps to enhance image quality to reduce retakes and facilitates low X-ray dose exams by analyzing image statistics. Technologists can seamlessly jump between different X-ray systems from Philips without having to re-learn new interfaces. Also the initial user only needs minutes of training before starting procedures.

### **Control at your fingertips**

The Eleva workspot consists of a powerful computer with a 19" LCD color touchscreen. This workspot features system monitoring for the DigitalDiagnost and connection to the hospital's digital infrastructure. The screen is used for the entire exam process, from reading patient data and selecting the exam to image processing with UNIQUE and the image quality check. Once finalized, the image is sent over the hospital network, with optional image archiving available on CD using DICOM Media.

### **Eleva key advantages**

- Common platform and intuitive user interface
- Short training, easy to learn and operate
- Use over a wide range of radiography imaging modalities

"I'm not an IT professional.  
Where's the simple user  
interface that I can learn  
in minutes?"



# Bringing sight to the invisible

Excellent image quality is the basis for premium patient care. Philips pioneered the use of multi-resolution image processing in digital radiography with the creation of UNIQUE (UNified Image QUality Enhancement). UNIQUE image processing software provides consistent, outstanding images for all anatomical areas. From image acquisition to reading and printing, UNIQUE optimizes every link of the imaging chain, harmonizing contrast and enhancing details. In addition, the Philips exclusive VarioFocus option generates exceptional image quality already in the tube.

## The importance of clarity

Designed for flat detector use and for more efficient workflow, images can be viewed after the exposure in a matter of seconds, saving time on patient waiting and image processing. UNIQUE is application-driven image processing which adapts to the output medium and detects the appropriate region of interest. It automates the contrasting process to quickly provide the kind of harmony and clarity normally achieved with manual input. The image display can be customized to the radiologist's individual preferences.

## The difference is in the details

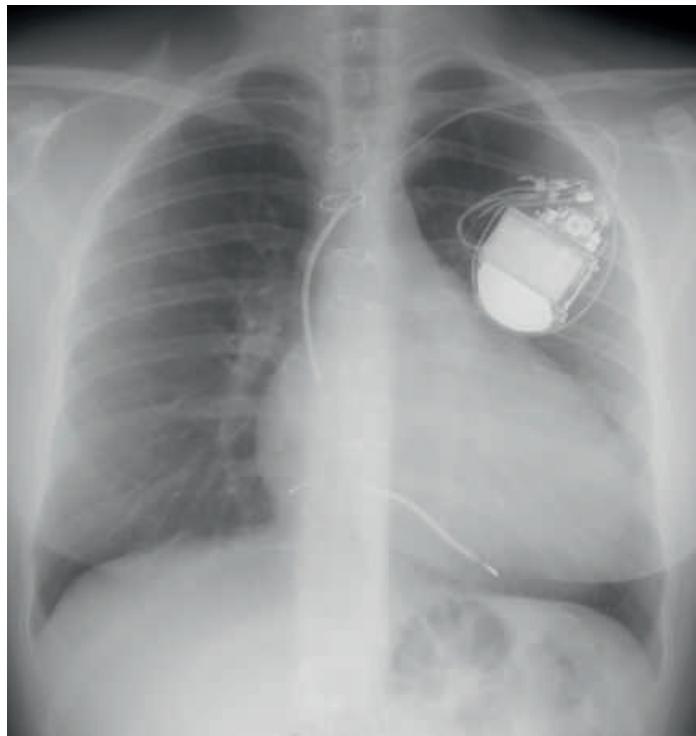
UNIQUE is especially suited to those applications where high-definition detail is absolutely essential, for example in pediatrics. And that applies whether you're using DR, CR or a DR/CR combination. For image verification by the user, parameters including contrast, brightness, rotation, mirror, annotations and shutters can be employed to further enhance details while keeping the image's natural appearance.

## Focus on VarioFocus

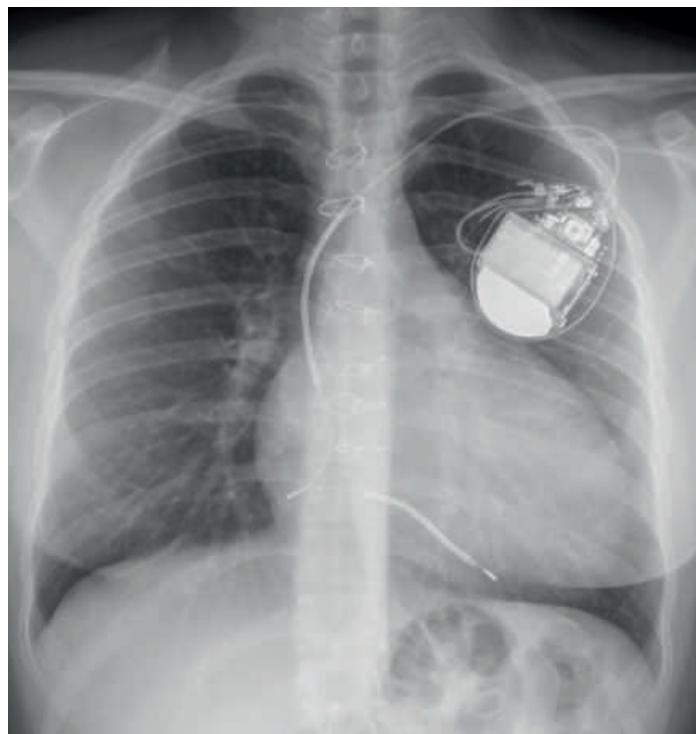
Philips does even more to cater for superb image quality. With the VarioFocus option you'll benefit from a generator feature allowing superb image resolution by using simultaneously both the small and large tube filaments. This provides the high resolution of the small focus and the higher power of the large focus and may result in longer tube life.

### UNIQUE key advantages

- Consistently high image quality
- Harmonized contrast
- Enhanced details
- Visually harmonized impression for DR and CR



**Standard processing**



**Philips UNIQUE image processing**

# Detectors that deliver

While the stationary digital detector is a stalwart in each of the more than 4,500 DigitalDiagnost systems worldwide, the wireless portable detector has also proven its clinical value since its introduction. With trays in the vertical stand and in the table to integrate the wireless portable detector, DigitalDiagnost becomes even more versatile. This gives you tremendous configuration and budget flexibility.



## Table, vertical stand and in your hands

Having a versatile wireless portable detector for fixed and free exams is cost-effective and offers expanded flexibility. You can cover much of your application requirements with a single-detector set-up, and step up to higher performance by using fixed detectors and an additional wireless portable detector. Both the digital wireless portable detector and the digital fixed detector are based on amorphous silicon with proven cesium iodide technology, which provides high image quality and may facilitate low X-ray dose.

## Free from cables and tethers

The wireless portable detector features a rugged design with a built-in handle, allowing for cable-free handling and positioning, especially useful for difficult anatomical views. Eliminating the detector tether is advantageous as there are no extra cables to trip over and one source of costly infections may be eradicated. Plus, the smooth rounded edges of the Philips wireless portable detector may increase comfort for patients.

## Accessories for even smoother workflow

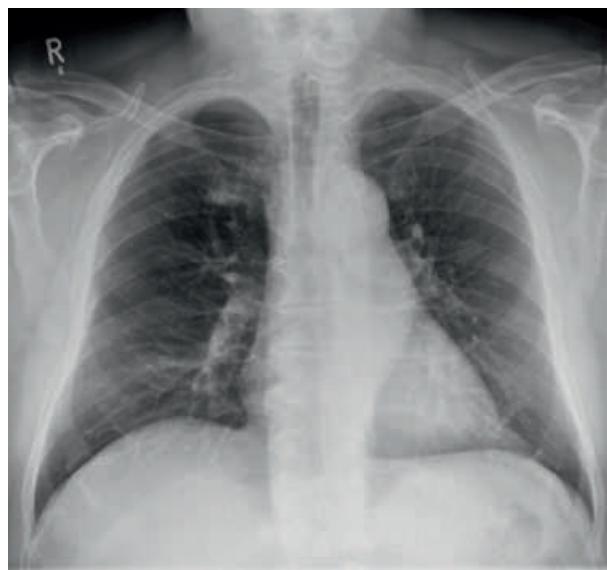
Use the wireless portable detector with a moveable holder for general exams in the DR room or with a bed holder for projections at the table or the patient's bed. These holders reduce your physical involvement and allow you to reach every area of the patient's body. The portable panel protector supports patients weighing up to 226 kg (500 lbs) for weight bearing examinations, while hygienic bags protect and shield the wireless portable detector from blood, water and other fluids. Click-on fixed grids are available in portrait or landscape orientation.





# A picture is worth a thousand

The Eleva user interface, UNIQUE image processing, the VarioFocus option and cutting-edge digital detectors: These features combine to offer you image quality excellence DigitalDiagnost from Philips can create. Describing it is one thing, proving it something else. Take a look at these clinical images and make up your own mind.



Bariatric chest

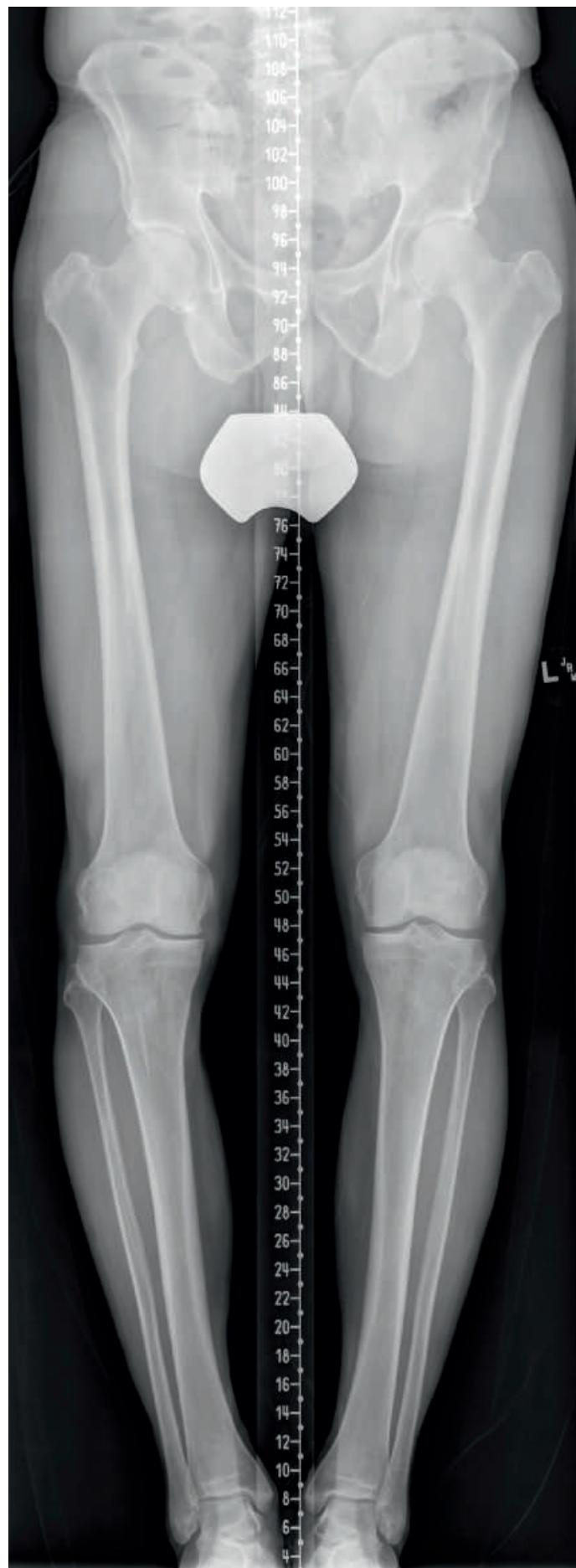


Pediatric hand



Lauenstein hip

words



Long legs via automatic stitching

# Our definition of broad application range

During your radiography clinical routine you may come across orthopedic exams and body parts that are extremely difficult to cover. Philips offers proven solutions for each situation with automatic image stitching and Philips computed radiography.



## Automatic image stitching rapidly

The automatic image stitching option is a specialized feature that facilitates dedicated orthopedic exams. Horizontal examinations on the table and vertical examinations at the vertical stand can be completed easily. For vertical examinations, the orthopedic patient support allows for precise and comfortable patient positioning for upright exposures.

Depending on the examination, up to three images are automatically acquired and composed together, making it ideal for fast, more optimized viewing of spines and legs. UNIQUE image processing provides harmonized quality for the entire image. The X-ray dose is adjusted for every single image, depending on the exposed body part. As the whole procedure is automated, manual interaction is no longer necessary, but you can make manual adjustments when required. This package also provides special orthopedic distance and angle measurements.



### When small is big: computed radiography

Philips computed radiography (PCR) can be used as an alternative to the wireless portable detector. The different sizes of CR cassettes are specially suited to certain exams, such as for smaller limbs in pediatrics. What's more, you can even do stitching with computed radiography images. Philips integrated CR option provides a single, consistent user interface and workflow for technologists and a single, consistent image processing and reading workflow for radiologists.

Philips gives you the option to use computed radiography as well as the wireless portable detector. Combining the CR and DR images into one single exam ensures smooth interfacing with PACS and a streamlined workflow as only one DICOM worklist needs to be followed. Using CR and DR in parallel provides an excellent level of flexibility since the user can choose the optimal image receptor, depending on the specific examination requirements.

# Everything clicks into place

Our priority is to improve your workflow to the benefit of everyone involved, from reducing the physical demands on the technologist to increasing patient focus and comfort. With motorized movements, tracking and our ergonomic ceiling suspension, you can save time and costs while providing premium patient care.





### Tracking and move-to-position

It's paramount to maintain the exact source to image distance, no matter what the position. Tracking automatically aligns the tube and detector to ensure source to image distance is correct while positioning adjustments are made. You can easily fine-tune the positioning at the vertical stand close to the patient, because the tube automatically follows the position of the image detector. The move-to-position function sets the detector to move automatically to pre-defined positions for the most frequent applications.

### Motorized movements

Our premium DR rooms feature motorized versatility. The moveable vertical stand has a swiveling, multi-positional arm to greatly enhance positioning and workflow. It can work horizontally as well as vertically, to do difficult under the table exams and cross laterals. The move-to-position function on the moveable vertical stand is extended to allow for improved automatic movements. Plus, the tube and the detector can be aligned automatically by pressing the alignment button. Our motorized tables are just as versatile, with a built-in wireless tray and even an optional swivel unit which rotates the single side suspended table 90° around the vertical axis of its base.

### Ceiling suspension

The tube control on the Philips ceiling suspension has an enhanced, easy to read LCD screen and supports multi-language exam information. All exam relevant functions are available allowing you to work close to the patient. Intuitive color settings also apply to the buttons with, for example, the yellow button executing movements along the yellow line and the blue button initiating movements along the blue tracks. Release and control happens all with one button, while the ergonomic tube handle has a single-handed brake release.

The ceiling suspension has a long vertical movement range of 1.65 m, facilitating lower leg exams without additional tools like chair or step. In addition, exams in wheelchairs are easier since you no longer need to position the patient on a table any more. If manual movements are necessary, you benefit from motorized servo assistance.

# Creating meaningful

DigitalDiagnost features the intelligent ergonomic design you've come to expect from Philips. We care deeply about how things look and feel, from hand-held devices to intuitive ceiling suspensions and full ergonomic room set-ups. Good design empowers people and satisfies their needs. This philosophy is exemplified by the forward-thinking approach of the Ambient Experience suite for radiography.



# design solutions

## Fresh insights, functional design

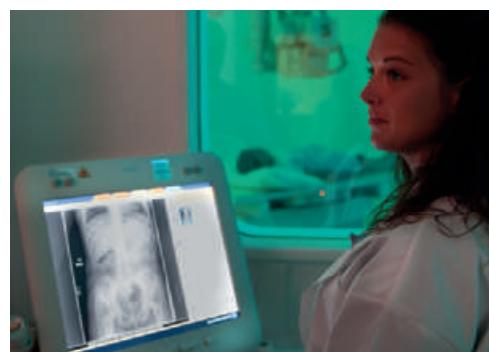
With seven studios spread over Europe, Asia and North America, Philips Design is one of the largest design organizations in the world. We anticipate people's needs and enhance workflow. This fully applies to DigitalDiagnost, with its easy, ergonomic handling and positioning of modular components and the intuitive screen design of the Eleva interface.

The highly versatile moveable vertical stand features duplicated control panels on both sides for quick adjusting and tracking, while the radiography table has large foot switches for motorized height adjustment and table top floating. Functional design also means having tables which can accommodate bariatric patients and offering detectors with five amplimat chambers for highly accurate images.

## Ambient Experience for radiography

With this innovative architectural design and enabling technology, an engaging patient-friendly environment is created to make the experience of visiting and working in a radiography room more pleasant and less stressful. Ambient Experience uses soothing lights, sound, thematic wall projections and room design to put your patients at ease, alleviating patient movement so exams may proceed more smoothly and comfortably. More relaxed radiography procedures may result in shorter exam times and increased patient volume.

Your staff can also move around the patient more freely, thanks to integrated storage, recessed counters and concealed waste bins. Philips Ambient Experience gives you a unique opportunity to enhance your radiography room, maximize your clinical investment and establish a competitive edge.



# We protect what's valuable

Philips places great emphasis on security for your hospital infrastructure and for devices like the wireless portable detector. Specific features such as encrypted WiFi and password protected access ensure the confidentiality and availability of your patients' health information.

## **Secure wireless technology**

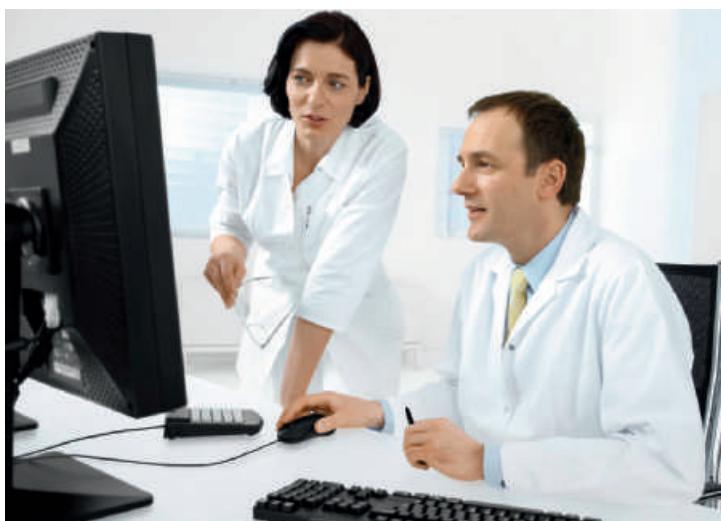
The wireless portable detector uses standard, WPA 2 encrypted WiFi technology to transfer data to the docking station. This connection is independent of the hospital network and creates no extra traffic or network security concerns. The WiFi frequency and bands can be configured according to your needs and will not interfere with your hospital IT infrastructure.

## **Confidentiality where it counts**

The design of the DigitalDiagnost features a unique user identification and authentication mechanism with password protected access and operating system hardening. Plus, the optional hardware firewall blocks access to patient data and images when required.

## **Network integration**

With the Eleva workspot you can retrieve patient data from RIS/PACS and send images over the hospital network and to a printer. Patient data can be entered via keyboard, barcode reader and the optional DICOM RIS interface, with the system automatically creating a work list from the data. Also, connection to non-DICOM compatible interfaces is possible.



# Long-term assistance you can rely on

From planning and start up through peak usage and renewal, we're with you every step of the way, with worldwide, remote and on-site service. Philips SmartPath gives you easy access to all the latest available updates and upgrades to keep your systems at a premium level, while our full lifecycle solutions are specifically designed around your organization, staff and patients.

## **Global service network**

With thousands of premium DR systems installed around the world, Philips offers you all the benefits of 24/7 support and international availability of spare parts. Our highly qualified service engineers and technicians will help you succeed in every phase of system ownership, from getting the right system for your needs to maintaining system uptime.



## **Philips SmartPath**

Access the latest available updates, upgrades and innovations. Philips SmartPath lets you keep your system running at peak performance. Stay up-to-date with changes in technology and benefit from the advantages of future developments. Having a clear lifecycle concept in place is one of the reasons DigitalDiagnost is a future-safe investment.

## **A full lifecycle solution**

The goal of our lifecycle solutions is to improve your hospital performance and increase patient satisfaction. On top of that, as part of our Philips Green logo initiative, our products are sustainable healthcare solutions built with the future in mind, featuring better energy efficiency.

“Why do I have to chase after updates?  
This should be automatic.”

**Philips Healthcare is part of  
Royal Philips Electronics**

**How to reach us**

[www.philips.com/healthcare](http://www.philips.com/healthcare)  
[healthcare@philips.com](mailto:healthcare@philips.com)

Asia

+49 7031 463 2254

Europe, Middle East, Africa

+49 7031 463 2254

Latin America

+55 11 2125 0744

North America

+1 425 487 7000

800 285 5585 (toll free, US only)



**asimpleswitch.com**

This brochure describes DigitalDiagnost release 3.0,  
which is not commercially available in Greater China.

Please visit [www.philips.com/digital\\_radiography](http://www.philips.com/digital_radiography)



© 2011 Koninklijke Philips Electronics N.V.  
All rights are reserved.

Philips Healthcare reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Printed in The Netherlands.  
4522 962 72281 \* MAY 2011