

**SIEMENS**

# Luminos dRF Max

Taking 2-in-1 to the MAX in radiography and fluoroscopy

[siemens.com/luminos-drf-max](http://siemens.com/luminos-drf-max)





# It's more. It's MAX.

## MAX – Multiple Advances in X-ray

It's more than just single features or functions. MAX offers multiple advances that touch multiple aspects of your daily work in radiography and fluoroscopy. MAX enables you to achieve the best image quality in the shortest amount of time with your system.

MAX is a unique Siemens innovation that is available with the Luminos dRF Max and Luminos Agile Max fluoroscopy systems, as well as the Ysio Max radiography system.

MAX is a result of Intelligent Innovation, our unique Siemens' way of seamlessly networking all system elements to give you more quality, synergies, and efficiency.

Experience the difference MAX makes with its multiple benefits, highlighted within MAX assistance and MAX detection.



### MAX assistance

It's more than just ease of use. MAX is your personal intelligent assistant. MAX proactively works for you, supports and protects you, even in the most challenging situations. For the best possible image with your system each and every time.

For example:

MAXalign – Get the tube and detector right every time. For reducing repeat exposures and saving time and patient dose.



### MAX detection

It's more than just the detector plate. It's about applying Intelligent Innovation at every step of the image formation. For the right image each and every time.

For example:

MAX wi-D and MAX mini – lighter and thinner wireless detectors that are the right size and easy to swap. For MAX performance, image quality, and efficiency.



# Luminos dRF Max

Taking 2-in-1 to the MAX in radiography and fluoroscopy



This 2-in-1 remote-control system offers you the advantages of both digital fluoroscopy and radiography in one system. And it brings you MAX – combining the proactive support of MAX assistance and the highly comprehensive imaging technology of MAX detection.

Luminos dRF Max is a true 2-in-1 system offering:

## Safer use

The lowest table height of 48 cm enables you to easily and safely transfer the patient and select the most comfortable working height. The SmartTouch touch-sensitive joysticks prevent unintentional movements. Safer use lets you focus on your patients while improving their safety – and yours.

## Sharper imaging

The large 43 cm x 43 cm MAX dynamic flat panel detector delivers more patient coverage in both dynamic and static imaging. Unique Siemens CARE features such as CAREPOSITION\* ensure you get the right image at the right dose.

## Stronger synergies

The proven 2-in-1 efficiency solution of Luminos dRF Max enables you to maximize room use and exam mix in both radiography and fluoroscopy. With MAXswap\*, you can maximize the utilization of your MAX wi-D\* and MAX mini\* detectors – for the right detector when and where you need it.

**Safer, sharper, and stronger than ever before, Luminos dRF Max offers you a great investment. Taking proven 2-in-1 to the MAX!**

\*Option

MAX assistance –  
Works. Supports. Protects.

Safer use – with a 48 cm minimum  
table height and SmartTouch





**48 cm table height**  
Low table height for more patient comfort



**Patient access from all sides**  
Improved comfort and safety for patients and staff

The low table height, the intuitive controls, and the innovative SmartTouch joysticks of Luminos dRF Max make every exam safer and faster. Its space-saving and open table design improves access to the patient and allows a more efficient use of room space.

#### MAX works

A minimum table height of 48 cm (19") protects you and patients by reducing the need for them to climb or be lifted onto the table. Regardless of patient size, the table's high weight capacity of up to 300 kg (661 lbs) and extra-wide tabletop of 80 cm (31.5") provide plenty of space and security. Barrier-free access from all sides and a maximum table height of 98 cm (39") mean you can choose your most comfortable working position.

#### MAX supports

The compact control console with touch user interface and SmartMove\* make positioning the system easier and safer than ever. Easy-to-reach, comprehensive tableside controls provide fast and easy access to all table movements and imaging parameters – allowing you to concentrate on the examination and your patient.

#### MAX protects

Siemens' SmartTouch feature ensures the joysticks are only active with the touch of a human hand to prevent unintentional system movements. A low minimum table height, excellent patient access, and intuitive system controls work together to enable a safer examination. Easier and more precise system positioning supports shorter exam times and lower doses for both patients and staff.

\*Option



## The right dose

The comprehensive CARE dose reduction program decreases radiation exposure for patients and staff, without compromising image quality. The MAX dynamic flat panel detector, with a state-of-the-art cesium iodide scintillator, gives you the choice of low-dose DFR or full-resolution RAD images.

### **CAREFILTER**

Automatic copper filters to reduce skin dose

### **CAREMATIC**

Automatic exposure parameters

### **CAREMAX\***

Dose area product measurement and monitoring

### **CAREVISION**

Pulsed fluoroscopy with 30, 15, 10, 7.5, and 3 p/s

### **FluoroLoop\***

Prospective and retrospective storage and review of fluoroscopy sequences

### **CAREPROFILE\***

Radiation-free collimation using Last Image Hold (LIH) for orientation

### **CAREPOSITION\***

Radiation-free patient repositioning using a virtual field display on the Last Image Hold (LIH)

\*Option



**MAX detection –**  
For the right image.

# Sharper imaging – with a 43 cm x 43 cm MAX dynamic detector and SmartView

The large 43 cm x 43 cm MAX dynamic flat detector ensures excellent coverage for both radiography and fluoroscopy imaging and provides high-resolution images for more accuracy and efficiency.

## MAX your performance

The 43 cm x 43 cm (17" x 17") flat detector delivers high-quality dynamic and static digital imaging and provides 116% more patient coverage than a 33 cm (13") image intensifier. The high heat-capacity tube with 783 kHU is ideal for larger patients and longer procedures, allowing you to continue the exam and not have to wait for tube cooling.

## MAX image quality

The MAX dynamic detector provides more detailed patient information by delivering distortion-free images of up to 3.4 lp/mm – enhanced by unique DiamondView Plus for improved bone detail and soft tissue contrast of radiographic images. In fluoroscopy, Digital Density Optimization (DDO) maximizes high-contrast images to improve contrast across the image, without loss of detail.

## MAX efficiency

More patient coverage with the large flat detector and better image quality lets you see what you need faster and easier. The one-click registration to setup for radiography or fluoroscopy exams enables the most efficient mix of exams per room and the best image quality in the shortest amount of time possible with your system. SmartView allows you to display and switch between images from different modalities, side by side, with a single touch of a button – giving you the comprehensive view you need.

## Up to 116% more image coverage with the flat detector



33 cm (13")  
Image intensifier



43 cm x 43 cm (17" x 17")  
Full view with MAX dynamic detector

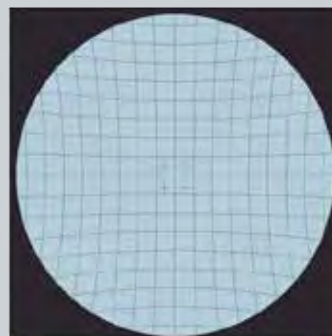


Image intensifier



MAX dynamic flat detector  
Free of image distortion

# Stronger synergies – with MAXswap and 2-in-1 efficiency in radiography and fluoroscopy

Luminos dRF Max is the champion of 2-in-1 efficiency – offering you the advantages of both digital fluoroscopy and radiography in one system. By leveraging the MAX wi-D and MAX mini detectors and MAXswap, you benefit from even higher utilization rates in both radiography and fluoroscopy. The wide range of configurations and clinical applications enable you to optimize room use with the mix of examinations you have – today and in the future. Luminos dRF Max takes 2-in-1 to the MAX.

## MAXswap\* – The right way to share

Effortlessly swap a pool of MAX wi-D and MAX mini detectors between multiple Luminos dRF Max, Luminos Agile Max and Ysio Max systems – and add more detectors as your needs grow or change. The quick and easy one-click registration contains safeguards so you can be sure that the right detector is in the right place at the right time.

## Ysio Max Option

With the Ysio Max option, Luminos dRF Max offers even more radiography flexibility in your fluoroscopy room. The ceiling-mounted tube with the MAXtouch display and the Bucky wall stand with tracking offer the same workflow and high throughput as an Ysio Max system.

\*Option





**MAX wi-D**  
A 35 cm x 43 cm wireless detector that weighs only 3 kg, is just 19 mm thin, and features a convenient handle



**MAXalign**  
Eliminates the need to guess the detector angle

**MAX wi-D\* – Lighter. Thinner. Faster.**

Providing flexibility in use for table, Bucky wall stand, and free examinations, this 35 cm x 43 cm (14" x 17") wireless detector is only 3 kg (6.6 lbs) light and 19 mm (0.7") thin. It features a handle for safer transport and innovative automatic charging when it's in the table or wall stand tray.

**MAX mini\* – The right size**

Get the image you need easier with MAX mini. This 24 cm x 30 cm (10" x 12") small wireless detector weighs just 1.6 kg (3.5 lbs). It's just the right size for those more difficult-to-position exams such as orthopedic, pediatric, and trauma imaging.

**MAXtouch – Maximized comfort at your fingertips**

The intuitive MAXtouch color touchscreen provides all the information you need for each patient and exam situation. You can change all image parameters and uniquely adjust the examination order, without leaving the patient's side.

**MAXalign – Get it right with the first shot**

MAXalign displays the detector angle of the MAX wi-D and MAX mini directly on the MAXtouch. This eliminates the need to guess the detector angle and delivers enhanced image quality and consistency. Save valuable time while protecting your patients from repeat exposures with free exams.



**MAX mini**  
At 24 cm x 30 cm, 1.6 kg and 16 mm thin, MAX mini is the right size for specialized exams.

## MAX image quality in radiography



P.A. Chest



L. Spine



Hand



Pediatric lateral skull



C. Spine

## MAX image quality in fluoroscopy



Barium swallow



Percutaneous cholangiography



Myelogram



Barium enema



DSA abdomen with stent

## Improved contrast and detail with DiamondView Plus and DDO



Without DiamondView Plus



With DiamondView Plus



Without DDO



With DDO

## SmartOrtho\* with automated tilting technique



Full spine, standing with system table



Full leg, standing with system table



Full spine, standing with Ysio option



Lat. spine, standing with Ysio option

MAX detection –  
For the right image.

# MAX image quality

Image quality is key to a quality examination and accuracy. That is why Luminos dRF Max with MAX detection applies Intelligent Innovation at every step of the imaging process. It's Siemens' unique way of providing comprehensive imaging technology.

## DiamondView Plus

DiamondView Plus improves image contrast and detail, for outstanding quality of radiography images. It enhances bone detail and soft tissue contrast, without increasing the dose.

## Digital Density Optimization (DDO)

DDO provides harmonization of high-contrast fluoroscopic images while improving contrast, without loss of detail in very light or dark areas. This enables more information to be visible across the entire image, which is especially important for structures with wide density variations.

## Auto Shutter and Auto Window

Auto Shutter enhances contrast in both live and still images with automatic and dynamic adjustment of the collimated border to black. Auto Window ensures consistent live image brightness during patient or system movements, even in more difficult areas such as the chest.

## syngo FLC

syngo FLC is your one-stop system that manages your entire examination workflow – from registration to documentation. The intuitive and easy-to-learn user interface is common to all Siemens systems. So you can concentrate on the examination and the patient, not the system.



## SmartOrtho

Providing faster and easier ortho imaging, SmartOrtho\* features an automated tilting technique for long leg and full spine imaging. It acquires up to four images on the table or Bucky wall stand to cover the selected region, automatically determines the number of exposures required, and composes them to a single image on the syngo FLC or on a separate workstation\*.

## Quality management

The integrated quality management system with Luminos dRF Max offers a Clinical Assurance Program (CAP) with reject analysis, Exposure Index (EXI) and Deviation Index (DI) Monitoring, and DICOM Dose Reporting. So you have a full overview of dose and image quality – enabling you to monitor system performance and determine staff training needs. Sent via DICOM to PACS and to RIS by MPPS, patient dose documentation is automatic and complete, and flexible according to your needs.

# Luminos dRF Max

Taking 2-in-1 to the MAX in radiography and fluoroscopy

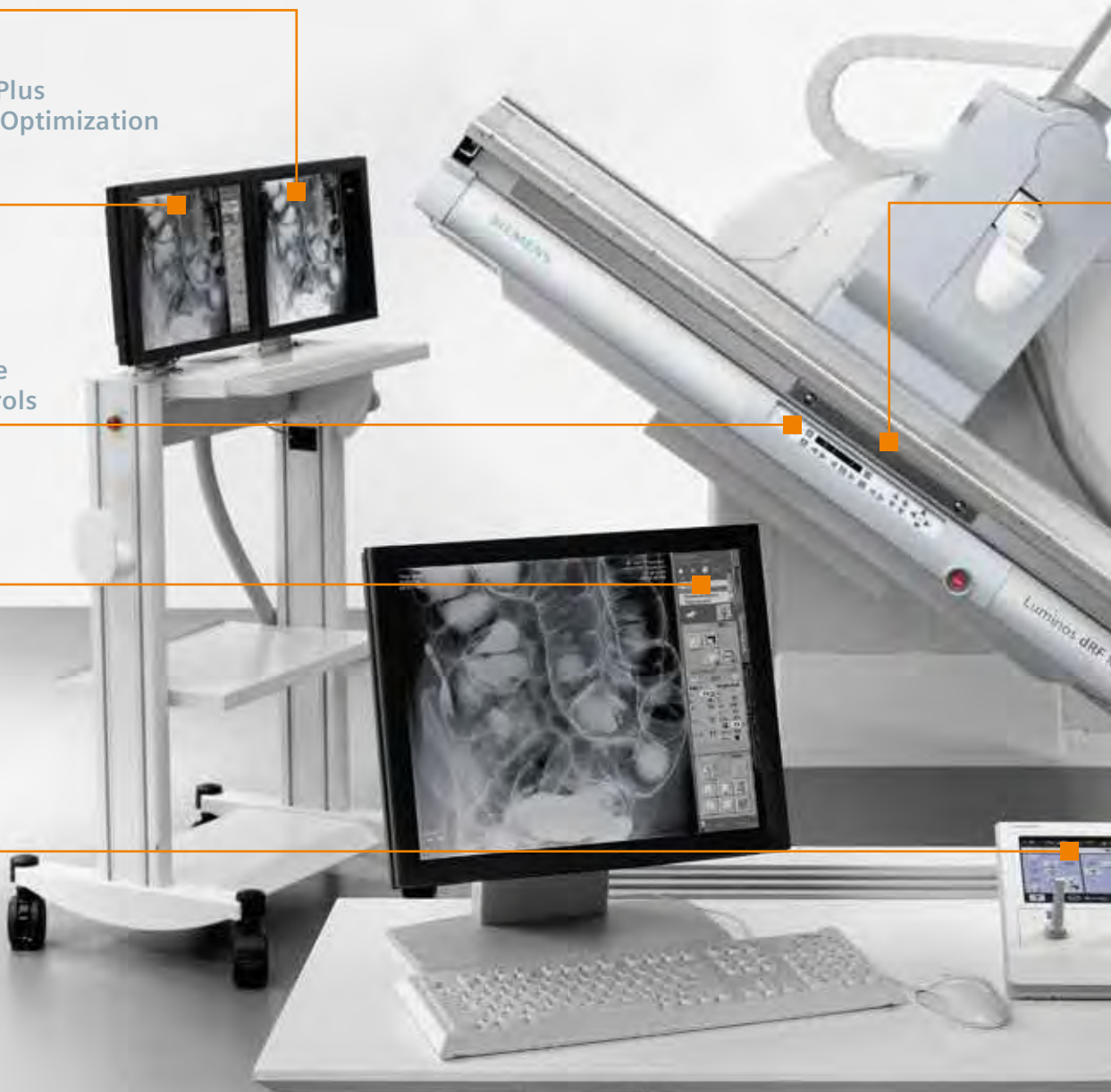
SmartView\*

DiamondView Plus  
Digital Density Optimization  
Auto Shutter  
Auto Window

Comprehensive  
tableside controls

syngo FLC

Touch user  
interface



Ysio Max option

MAXtouch  
MAXalign

CARE program

43 cm x 43 cm  
MAX dynamic detector

SmartOrtho\* on  
Bucky wall stand

Optional  
in-room console

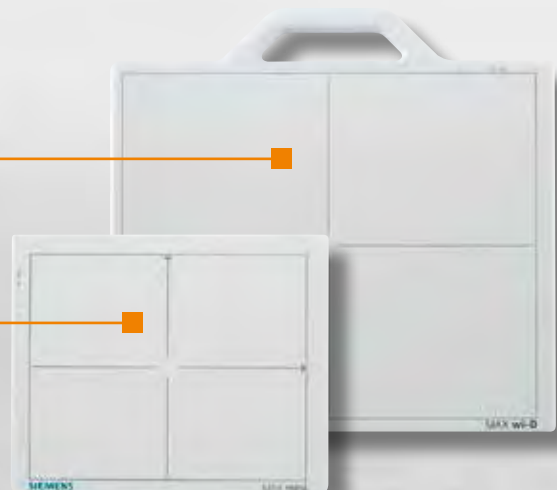
SmartOrtho\*  
on table

Minimum table  
height of 48 cm

SmartTouch

MAX wi-D\*

MAX mini\*



Luminos dRF Max is not commercially available in all countries. Due to regulatory reasons, its future availability cannot be guaranteed. Please contact your local Siemens organization for further details.

On account of certain regional limitations of sales rights and service availability, we cannot guarantee that all products/services/features included in this brochure are available through the Siemens sales organization worldwide. Availability and packaging may vary by country and are subject to change without prior notice.

The information in this document contains general descriptions of the technical options available and may not always apply in individual cases.

Siemens reserves the right to modify the design and specifications contained herein without prior notice. Please contact your local Siemens sales representative for the most current information.

In the interest of complying with legal requirements concerning the environmental compatibility of our products (protection of natural resources and waste conservation), we may recycle certain components where legally permissible. For recycled components, we use the same extensive quality assurance measures as for factory-new components.

Any technical data contained in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced.

**Siemens Healthcare Headquarters**

Siemens Healthcare GmbH  
Henkestr. 127  
91052 Erlangen  
Germany  
Phone: +49 9131 84-0  
[siemens.com/healthcare](http://siemens.com/healthcare)

Order No. A91XP-80011-2C1-7600 | Printed in Germany | CC XP 1958 02162. | © Siemens Healthcare GmbH, 2016

**[siemens.com/healthcare](http://siemens.com/healthcare)**