Definium™ 6000

Digital radiography system with removable detector
Why Definium 6000?

The Definium 6000 digital radiography system is engineered to combine simplicity and reliability with wide clinical coverage. We've applied technology where it counts to make your life easier and your Definium system highly reliable and affordable. We've also added features that let you go beyond routine exams and explore new possibilities with advanced functionalities that save time and enhance your diagnostic performance.

The not-so-bare essentials

Removable detectors. Advanced applications. Fast image review. What more could you want from an affordable digital radiography system?
The digital advantage

Digital image acquisition means faster exams that improve your throughput and contribute to patient satisfaction. You eliminate time spent processing film, handling cassettes, and dealing with troublesome cassette tray systems.

Solid construction, long life

No matter what your working day brings, you can count on your Definium 6000 for strength and resilience. The digital detector can sustain weights up to 160 kg, so it’s suited for tough duty. The portable detector is crafted from durable materials, including carbon fiber found in Formula One racecars. The structural components use light, high-strength aluminum-magnesium alloy.

High quality, low noise, low dose

GE’s patented non-tiled amorphous silicon flat-panel digital detector with cesium-iodide scintillator delivers high Detective Quantum Efficiency, enabling you to take full advantage of signal while reducing dose. You get improved image quality and object detectability at clinically relevant spatial frequencies. You can acquire higher-quality images at a lower dose without compromising image quality.

Built to last, designed to perform

Whether you operate a demanding emergency room or trauma center or perform routine orthopedic imaging, Definium 6000 delivers long, reliable performance and superb images – all backed by world-class service support*.

The Definium 6000 is used to generate radiographic images of human anatomy. It is intended to replace radiographic film-screen systems in all general purpose diagnostic procedures for head, cervical part, thoracic part, abdomen, spine and extremities. It is applicable for all the patients who need any of these general purpose diagnostic procedures. This device is not intended for mammographic and dental applications.

Always wired to the expert you need

Our InSite™ service platform lets us resolve on average 40%* of service issues remotely* within an hour. For urgent issues, you are guaranteed a connection to an online service engineer within five minutes through our ‘Live in Five’ initiative. Even if your system needs a site visit, InSite saves significant time. The remote diagnosis means your field service engineer arrives with knowledge of the issues and with the tools and parts needed to resolve it quickly.

*Percentage based on aggregated historical data for GE Healthcare in Europe, Middle East and Africa.
Learn your way around in a minute

X-ray exams are extremely fast, flexible, and automatic. See how the Definium 6000 makes your work life easier.

From patient to image. In an instant.
The Definium 6000 includes work list management functionality that automatically loads the patient information on the acquisition workstation, saving time and reducing manual-entry errors.

Save precious time in the exam room
Auto Protocol Assist automatically selects and initiates exam protocols through an interface with the Radiology Information System. Protocols are automatically matched with a predefined field of view, so no set up is required.

Everything at your fingertips
The OTS touchscreen is intuitive and straightforward. A whole group of preset field-of-view selections are displayed, with all images centered on the detector. Views are available in both portrait and landscape. Just check the patient’s name and adjust the energy.

Preview images in just 5 seconds
The Definium 6000 workstation incorporates two dual-core Intel® Xeon® Processor 5100 Sequences, or Quad-Core Intel Xeon Processor E5000 Sequence with Intel® 64 Architecture. This means excellent computation power and almost instant (5 sec) display of the image.

Positioning made easy
The auto detent and auto-tracking motorized vertical movement of the OTS allows for fine, comfortable, quick adjustment of the wallstand and table detectors. With auto-tracking, the table and wallstand detectors maintain alignment with the vertical and longitudinal movements of the OTS — so you can match the center of the scan automatically.
Experience new freedom in image acquisition

GE’s patented removable detector gives you unprecedented freedom of placement.

Your Definium 6000 can accommodate two flat-panel detectors to minimize set up and broaden your range of possibilities. Now you can take all cross-lateral and offside shots with ease and speed. You can even take the detector to the patient for easier imaging of trauma cases or people in wheelchairs.
Explore new realms of power and convenience

Discover advanced applications that can heighten your diagnostic power and make challenging exams simple.

Tissue Equalization

Tissue Equalization improves contrast and visibility in over-penetrated and under-penetrated regions of an image without compromising the contrast in other regions of interest. In combination with the GE Healthcare flat-panel digital detector, Tissue Equalization can provide more diagnostic information in a single shot, reducing re-takes and increasing throughput.
Auto Image Pasting, long-bone images in one easy process

Get seamless long-bone or full spine images at low dose in one fast, highly automated exam. With Auto Image Pasting, a proprietary technique pioneered by GE Healthcare the Definium 6000 acquires two to five overlapping images: The OTS and wallstand detector move automatically to provide complete coverage of the anatomical region of interest. Then, your system combines the images into one high-quality, seamless, composite picture for easy diagnosis. Auto Image Pasting enhances image quality and facilitates measurements in orthopedic applications: You get improved resolution and a large dynamic range, with no geometric distortion.

Image Pasting and processing time for a three-image exam is less than 12 seconds from last exposure

X-ray imaging volume continues to climb, and some of the fastest-growing procedures revolve around the lower extremities, hips and spine. These time-consuming exams – 20 minutes or longer for a scoliosis exam and 10 to 15 minutes for a lower-extremity – means a general decline in room productivity.

Auto Image Pasting automates the entire image acquisition procedure, reducing exam time and potential patient movement. The software calculates how many images must be acquired to capture the entire anatomy of interest, for a total length of 150 cm. The equipment acquires the images automatically, with minimal technologist intervention. Acquisition time for a three-image exam (90 cm coverage) is less than 10 seconds. Image Pasting and processing time for a three-image exam is less than 12 seconds from last exposure. With Auto Image Pasting the Definium 6000 allows to perform full spine and leg length examinations 3 x faster than with conventional CR.
Dual-Energy Subtraction
see bone and soft tissue better than ever

Dual-Energy Subtraction separates soft tissue and bone structures by acquiring two images of the chest taken milliseconds apart. Dual Energy improves the visibility of details in some regions of the chest and makes soft tissue lesions more conspicuous — thus easier to detect and diagnose. Bone lesions and calcifications also become more visible. With a small increase in radiation dose, Dual Energy lets you obtain complementary images of great benefit in daily practice — and is especially beneficial for less experienced radiologists.

1 - Standard chest x-ray
2 - Small nodules easily located in the soft tissue image - no calcified nodules visible in the bone image
3 - Standard chest x-ray
4 - Dual-Energy soft tissue image clearly depicts pulmonary nodules and pleural effusion left
5 - Bone lesion very visible on Dual-Energy bone image

Designed with the environment in mind

The Definium 6000 is energy efficient and highly recyclable. It is among the GE family of ecomagination products, designed to help solve the world’s toughest environmental challenges. A GE digital X-ray room is designed to replace two analog rooms, saving energy and space and avoiding water and chemical use for film processing, while maintaining the same imaging volume.
About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com

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