KonicaMinolta
Wireless Digital Radiography Solutions

KONICA MINOLTA

inMed®

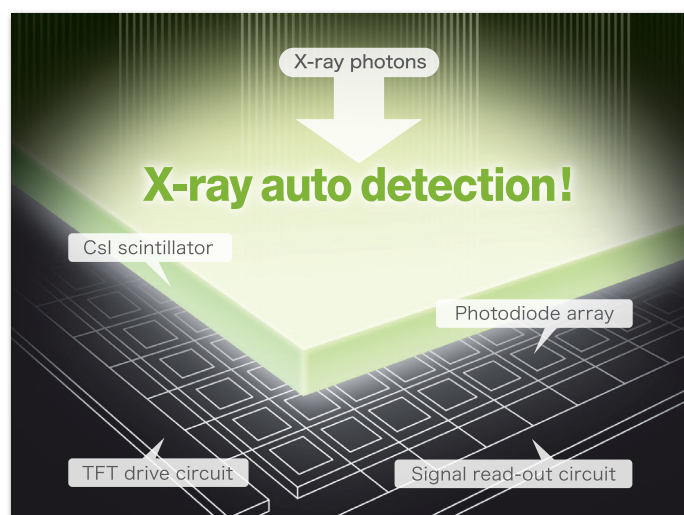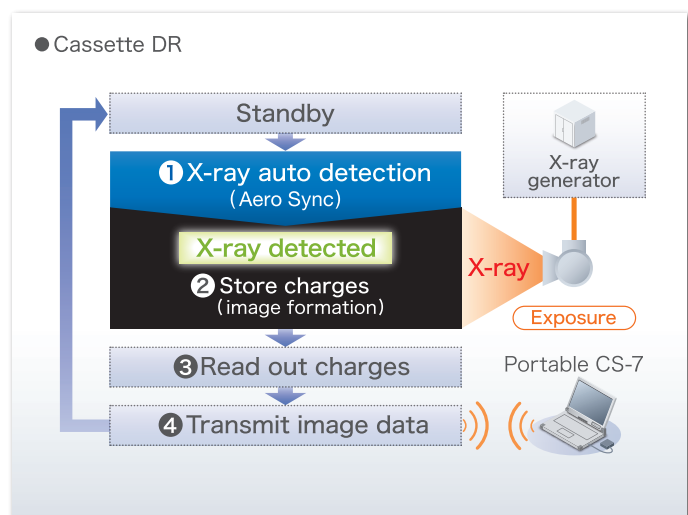MEDICAL | SCIENTIFIC | SOLUTIONS

AeroSYNC®

The AeroSYNC® is a new x-ray auto detect mode in which the panel automatically detects x-ray exposure. The AeroSYNC® enabled panel automatically senses an x-ray exposure, forms the image and automatically continues with the x-ray storage process. Communication with the x-ray generator is no longer necessary. This means that when using AeroSYNC®, even analog portable x-ray systems not fitted with digital radiography or DR interfaces can be easily upgraded into digital systems.

Mobile Patient Solution

The radiographic images, can be captured and checked on the tablet, in the examination room or hospital ward or with a touch of a finger transmitted to remote radiologists and clinicians for immediate diagnosis and treatment.

No Physical Generator Connections

Due to AeroDR's wireless communication and AeroSYNC® technologies, the AeroDR® portable upgrade system (panel, console and wireless access point) can connect to almost any portable system and is easily shared between multiple units.

● Cassette DR

Standby

❶ X-ray auto detection (Aero Sync)

X-ray detected

❷ Store charges (image formation)

❸ Read out charges

❹ Transmit image data

X-ray generator

X-ray

Exposure

Portable CS-7

X-ray photons

X-ray auto detection!

CsI scintillator

Photodiode array

TFT drive circuit

Signal read-out circuit

Integrable System

The AeroSync® technology allows an upgrade regardless of the manufacturer, without physical interference with the station and works through independent radiation detection.
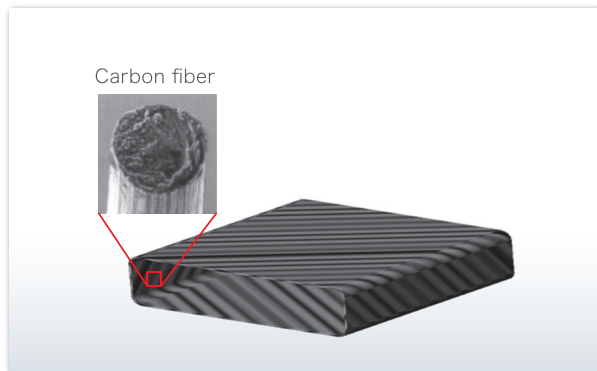

● Portable system solution

CS-7 Portable

AeroDR

Installation case by AeroSync

Treatment room

Consultation room

Examination room

SIMPLE CASSETTE INNOVATION — A CORNERSTONE OF WIRELESS AERODR UNIVERSAL DR PANELS SOLUTION

The AeroDR SYSTEM series x-ray flat panel detectors (FPD), are fitted with a unique battery design for extended life and short charge cycle. AeroDR provides either a Universal Fit option for converting existing analog rooms to digital suites, or a full room radiography option when combined with a new x-ray purchase. With a detector design that fits existing wall stands and bucky trays without modifications, AeroDR is delivering a truly universal fit digital imaging solution.

Durable Monocoque Structured Cassette Case

AeroDR adopted the 'monocoque case' to ensure reliable operation even under substantial shock or load. Since the battery is incorporated in the cassette, the AeroDR does not need battery replacement which is known to reduce the structural integrity of the case.

- Use of carbon fibre reinforced plastic (CFRP)
  The CFRP is a light and strong composite material hardened with weaved plastic resin.
- What is monocoque?
  A monocoque structure refers to a method of construction used to support structural loads by use of an object exterior.

Durable Against Loading

The AeroDR cassette case is light weight and high strength with excellent handling capability. With a simple workflow radiologists can easily perform non bucky exams such as table top or cross table projections. The load bearing performance of the AeroDR wireless FPD cassette is the same as that of the CR cassette.

We consider a variety of operation scenes for DR panels.

- **1-point load test:** Cleared endurance test at 150kg (330.7lb) ø40mm (1.6 inch).

- **Surface load (uniform load):** Cleared endurance test on the entire surface of the 300kg (661.4lb) on image field.

Carbon fiber

● Monocoque case made out of carbon fibre.

● Point load **150kg** [*1] (330.7lb)　● Surface load **300kg** [*2] (661.4lb)
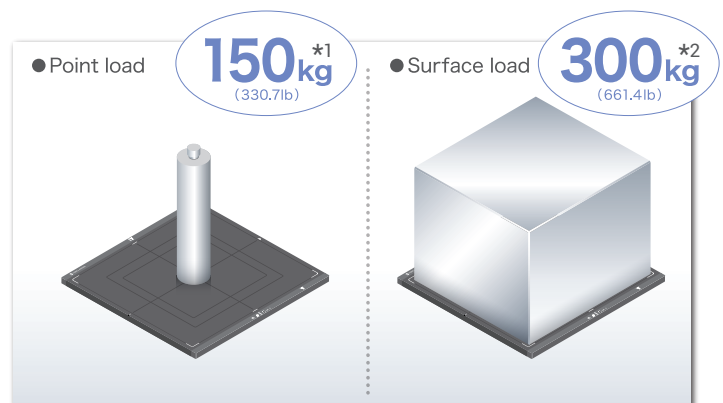
● Deadweight, even when loaded on the AeroDR detector, has no effect on images and the AeroDR detector. The measurement method is based on KonicaMinolta standards.
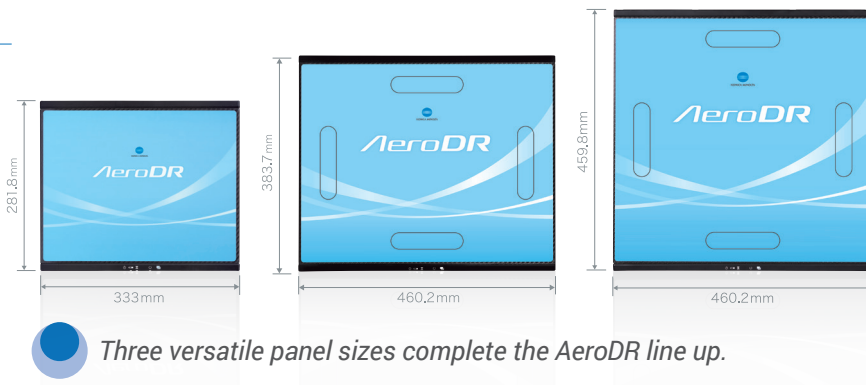
[*1] ø40mm (1.6 inch)　[*2] @ effective image area overall

AeroDR SYSTEM series

● AeroDR 1417HQ

Performance Model

- Light weight at 2.9 kg (6.4lb) 14x17" flat panel detector
- 211 images / 5.8 hours *3
- AeroSync®*4 function available

● AeroDR 1417S

Value Model

- Light weight at 2.8 kg (6.2 lb) 14x17" flat panel detector
- 211 images / 5.8 hours *3
- AeroSync ®*4 function available

● AeroDR 1717HQ

Performance Model

- Light weight at 3.6 kg (7.9 lb) 17x17" flat panel detector
- 189 images / 5.2 hours *3
- AeroSync ®*4 function available

● AeroDR 1012HQ

Performance Model

- Light weight at 1.7 kg (3.8 lb) including batteries 17x17" flat panel detector
- High image quality at low x-ray dose compared with CR
- 146 images / 4.0 hours *3
- AeroSync ®*4 function available

281.8mm   333mm
383.7mm   460.2mm
459.8mm   460.2mm

● *Three versatile panel sizes complete the AeroDR line up.*
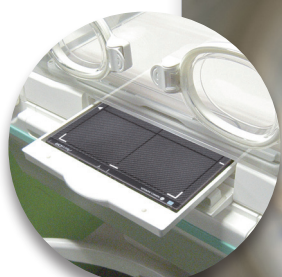
Key Features

- ● **Compact & lightweight imaging panel**
- ● **No need to detach cassette DR battery**
- ● **High durability for handling DR panel same as CR cassette**
- ● **AeroDR wireless self-triggering panel can fit existing wall-stands or table bucky trays**
- ● **Available in 3 versatile sizes**
- ● **Recommended exposure scenes are x-rays in the field of orthopaedics such as extremities, skyline and in neonatal intensive care units (NICU)**

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*3 Under conditions where the AeroDR system is connected to an x-ray system and the interval between studies is five minutes and three images are captured in each study, assuming 20 seconds for each exposure to position the patient.

*4 AeroSync® is a new x-ray exposure synchronisation technology that requires no cable connection to the x-ray generator.

AeroRAD

DIGITAL X-RAY SYSTEM

The AeroRAD diagnostic system is user-friendly designed, ensures quicker workflow and when combined with the AeroDR wireless FPD, provides completely free panel handling. The x-ray tube stand has multiple configurations and can be either floor mounted, floor-ceiling mounted or ceiling suspended, minimising the positioning time. The unit also includes a wall bucky-stand. The panel tray can be rotated 90 degrees, and the FPD can be easily removed from the tray and used for out of bucky exposures. There are two table models to choose from — stationary height four-way or the elevating four-way table. The x-ray controller and AeroDR are linked to the CS-7 console, featuring intuitive user interface that provides complete workflow control. The CS-7 console will display a preview in less than three seconds, after an exposure.

AeroRAD System Lineup

The AeroRAD system is designed to perform general purpose radiographic exposure of all different body parts and provides comprehensive solution benefiting both patients and medical staff.

- Vertical wall bucky stand
- Floor mounted tube stand
- Elevating table
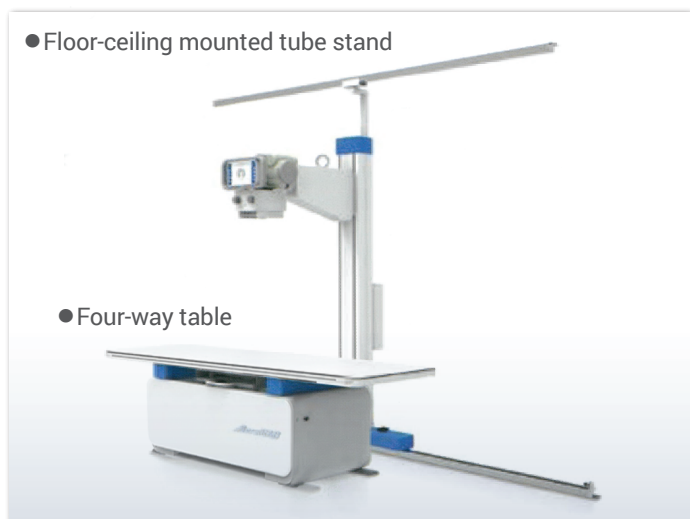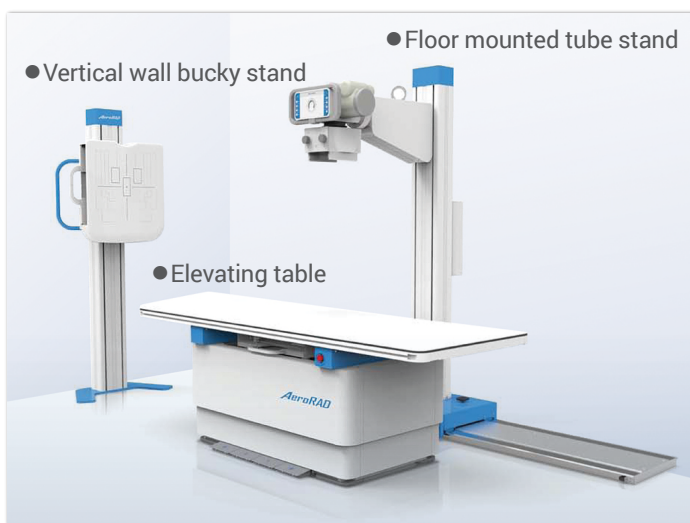
Key Features

- Panel tray can be turned in 90 degrees direction
- Panel can be removed from the tray and used on the unit table
- X-ray console can link up exposure settings with CS-7 console
- Generator output line-up at 32 kW, 40kW and 52kW
- Fitted with AeroDR Flat Panel Detector
- Capacitor assisted and mounted with an internal uninterruptible power supply (UPS) generators for areas with unstable power supply

- Floor-ceiling mounted tube stand
- Four-way table

- Ceiling suspended tube stand

AeroRAD

GENERATOR LINEUP

Standard Model
AeroRAD 32S, 40S, 52S, 68S, 82S
For enough and stable electric power site

Capacitor Assisted Model
AeroRAD C32, C40
For small electric power site
3kVA line power (110VAC or 230VAC) is enough for x-ray generationup to 500mA tube current

Internal UPS Mounted Model
AeroRAD U32, U40
For unstable electric power site

Line Powered X-ray Generators					
System Model	AeroRAD-32S	AeroRAD-40S	AeroRAD-52S	AeroRAD-68S	AeroRAD-82S
Generator Model	GXR-32	GXR-40	GXR-52	GXR-68	GXR-82
Output Rating	32kW	40kW	52kW	68kW	82kW
Line Nominal, Phase	230 VAC, 1 phase 400 / 480VAC, 3 phase		400 / 480VAC, 3 phase		
Line Voltage Range	±10% (Frequency : 50/60Hz)				
kV Range	40~125kV, 1kV step				
mA Range	10 to 400mA	10 to 500mA	10 to 640mA	10 to 800mA	10 to 1,000mA
Timer Range	0.001 to 10 sec, 38 steps				
mAs Range	0.1 to 500mAs (Optional 640, 800, 1,000mAs)				
Max. Power Output	400mA@80kV 320mA@100kV 250mA@125kV * Optional 150kV : 125mA@1φ : 200mA@3φ	500mA@80kV 400mA@100kV 320mA@125kV * Optional 150kV : 160mA@1φ : 250mA@3φ	640mA@81kV 500mA@104kV 400mA@130kV 320mA@150kV	800mA@85kV 640mA@106kV 500mA@136kV 400mA@150kV	1,000mA@82kV 800mA@102kV 640mA@128kV 500mA@150kV
Power Requirement	Minimum 125% of output rating				
Minimum Breaker Rating	75A (230Vac,1φ) 50A (400Vac, 3φ) 40A (480Vac, 3φ)	100A (230Vac,1φ) 65A (400Vac, 3φ) 50A (480Vac, 3φ)	75A (400Vac, 3φ) 65A (480Vac, 3φ)	90A (400Vac, 3φ) 75A (480Vac, 3φ)	100A (400Vac, 3φ) 90A (480Vac, 3φ)
Rotor Supply	Low Speed Dual Speed (Option for 3φ)		Dual Speed (Option for GXR-52)		
Reproducibility	Coefficient of Variation: kV < 0.005, Time < 0.005, mAs < 0.01				
Accuracy	kV < ±(1%+1kV), mA < ±(3%+1mA), Time < ±(1%+0.5ms), mAs < ±(3%+0.1mAs)				
Linearity	Coefficient of Linearity < 0.01 : CL = (X1-X2) / (X1+X2), where X is mR/mAs				
Anatomical Programs	User programmable max. 1,280 programs with APR utility software				
Technique Selection	4 point display (kV, mA, Time, mAs)				
Image Receptors	2 Bucky + 1 Non-Bucky				

Portable Solution

AERODR RETROFIT UNIT TURNS YOUR EXISTING ANALOGUE X-RAY INTO A DIGITAL WIRELESS SOLUTION

The lightweight and cable free operation of the AeroDR wireless digital flat panel detector system allows for easy patient and image detector positioning while reducing patient discomfort and stress during portable procedures. The AeroDR portable imaging console has the ability to QC the x-ray to determine if re-exposure is needed prior to leaving the patients side. The built in AeroDR roaming feature allows any AeroDR panel to be shared between portable use and also use in other general radiography rooms. The design of the AeroDR makes it also ideal for use in surgery and operating room environments.

AeroDR Portable Retrofit Unit
AeroDR detector
CS-7 Portable

What is the AeroDR Portable Retrofit Unit?

This unit with a very small footprint (384mm x 384mm x 72mm) is designed to quickly, easily and inexpensively turn your current portable x-ray unit into a digital wireless solution. It is small enough to be installed and stored inside the cassette storage bin. It is completely self contained and includes two long life batteries for self powering operation.

Control Station CS-7 Portable

The CS-7 portable control station features the same powerful yet easy to use imaging software environment as found on the CS-7 control station used in general radiography rooms. This common user interface delivers a familiar tool that ensures the same outstanding image quality and usability regardless of imaging application.

Image preview is delivered in approximately 3 seconds and can be viewed prior to leaving the patient's side. The CS-7 portable controller can be mounted onto a supported portable unit using the supplied custom mounting hardware.

Regius ΣII

FROM PATIENT REGISTRATION TO LONG TERM ARCHIVING, YOU ARE PROVIDED WITH A COMPLETE WORKFLOW SOLUTION

Regius Sigma II delivers a compact and affordable imaging solution that maintains the superior image quality and reliability expected from our Regius family of products. Combined with the redesigned ImagePilot software, the Regius Sigma II provides simple operation and smooth workflow for a wide range of medical practitioners.

All-in-One Smart Console

The ImagePilot software combines CR image acquisition and PACS functionality. It is a complete workflow solution for clinics, imaging centers and small hospitals. From one GUI, users can acquire, review, distribute and archive patient images.

ImagePilot supports a multi-touch display for the easiest operation. More than 100 functions and features are literally at your fingertips.

Ultra-Compact CR Reader

The Regius Sigma II is KonicaMinolta's smallest and lightest CR. The desktop CR has a footprint of only 0.31m² and weighs a mere 28kg.

Energy consumption has been reduced to 100VA which is about the same as a household light bulb. That's one tenth the power of the smallest film processor.

High Quality

The Regius Sigma II supports pixel sizes of 87.5μm and 175μm for all cassette sizes, achieving a maximum resolution of 4020×4892 pixels (14×17 at 87.5μm).

Integral Processing

Integral Processing - the result of KonicaMinolta's vast imaging experience - is a robust algorithm that produces the optimum diagnostic image automatically. This patented technique greatly simplifies x-ray image acquisition while delivering incredibly consistent image quality and virtually eliminating the need for retakes.

Register

Manual or automated patient registration from anywhere in the office. Select the patient from the worklist or input patient information. No need to specify body part or exam type.

Digitise

Just insert an exposed cassette into the REGIUS ΣII CR reader. The ImagePilot then automatically processes the image for optimized diagnostic viewing.

View

Images can be viewed at up to 20 ImagePilot client workstations throughout the office. Each client supports all the same ImagePilot functions - the same GUI at every seat.

Archive

With storage capacities up to 2TB, ImagePilot can archive up to 300,000 images on our expandable servers. And this can be expanded even further with add-on storage.

Regius Model 210

COMPACT & SPEED

The direct digitiser Regius Model 210 achieves a maximum productivity in various environments, succeeding the Regius MODEL 170 concept of a "Super Distribution System". The system offers a 43.75μm* read function for mammography with the new and enhanced console features. The C-PLATE series cassette with columnar crystal phosphor is ideal for mammography and paediatric use.

Compact High-Performance Design

Utilising a unique dual bay design, the high speed Regius Model 210 reader processes up to 100 plates per hour. This next generation reader radically improves workflow all within a mere 58×58cm footprint.

Choice of Two Cassette Registration Options

There are two mode options and two types of bar code readers -- single-type (photo) and multi-type available for cassette registration. The registration at imaging (barcode registration) and registration at reading (screen menu selection) offers more flexibility.

Centralised Image Checking

The "Ultimate Resource Sharing" concept provides the flexibility to separate the consoles and the readers location. This allows for the same fast and thorough image checking as with conventional systems. As a result the system layout and productivity are optimised according to the number of examinations conducted for the work line and floor space.

Side Panel for Optical Unit Maintenance

Fine dust accumulated on the optical unit can be easily removed by opening the side panel and pulling out the cleaning knob.
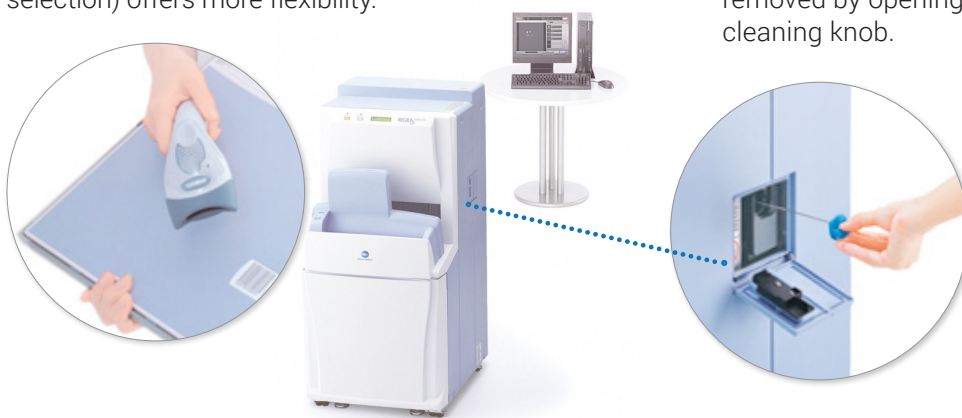
Regius Model 110

MORE ACCESSIBLE DIRECT DIGITISER

The Regius Model 110 is a high performance single bay CR system that can process up to 76 plates per hour (14x17"). A touch screen control station provides intuitive software tools for easy operation. Compact size and space saving design are the Regius Model 110's main features.

Powerful Processing Performance

The smallest, top-of-the-line Regius Model 110 delivers a processing performance of 76 sheets/hour, achieving a high-speed processing cycle of 47 seconds/plate.

Space Saving Compact Design

The Regius Model 110 features an astonishingly compact design with the smallest depth of 365 mm.

* Note: Optional licence is necessary to use this function.

Versatile Cassette*

The Regius Model 110 allows for easy operation with the simple installation of an exposed cassette. The height of the cassette slot is 710 mm.

* Use only cassette & plate produced after April, 2004.

Flexible Placement Options

The two way setting option allows selection of two patterns of layout depending on the facilities space limitations.

<Suitable for narrow space>

365mm

〈For more accessible space, a wide position is also available〉
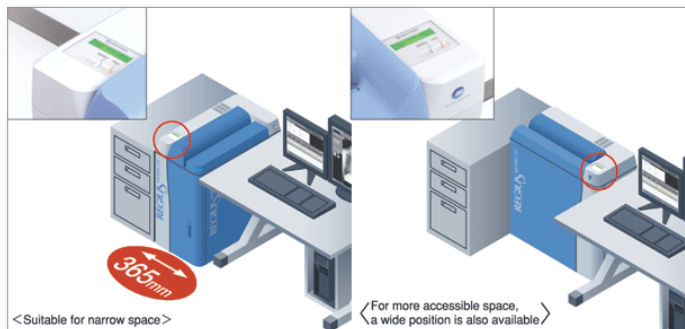
Location of the operation panel is adjustable at the user facility.

Regius Model 110HQ

COMPACT & MAMMOGRAPHY READY

Compact and space-saving Regius MODEL 110 HQ is now supporting a high resolution read function for mammography.

Space Saving Compact Design

The Regius Model 110HQ features an astonishingly compact design with the smallest depth of 365 mm. The two-way setting method allows for selection of two layout orientations. The Regius Model 110HQ delivers processing performance of 80 sheets/hour.

General Examination | Mammography

87.5 / 175μm   43.75μm

CS-7
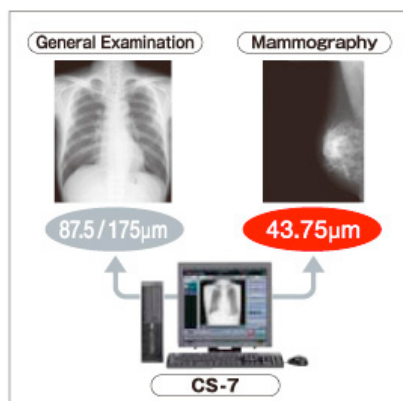
43.75μm Read Capacity For Mammography

In addition to previous 175 and 87.5μm read capacity, a new 43.75μm read function for mammography has been added and higher resolution images are now available. Furthermore, ultra-high resolution imaging has been achieved by employing C-PLATE for mammography with excellent sharpness and granularity. The mammography cassette can be handled in the same manner as the previous standard cassette, providing the same operability.

Versatile Cassette*

The Regius Model 110 allows for easy operation with the simple installation of an exposed cassette. The height of the cassette slot is 710 mm.

* Use only cassette & plate produced after April, 2004.

KONICΛ MINOLTΛ

DryPRO Σ

DRY LASER IMAGERS

The DryPRO Sigma desktop Dry Laser outputs the films up to 45 sheets (14x17") per hour after the image has been printed from ImagePilot. DryPRO Sigma has four types of films available, which can be transposed based on the user needs.

Sigma Package

The tabletop Dry Laser imager, DryPRO SIGMA adds true customer value to all institutions using film. Especially for budget-constrained institutions using the conventional product, it makes digital imaging easy and efficient when combined with Regius SIGMA and ImagePilot.

Compact Design

DryPRO SIGMA features a compact footprint as small as 65 x 60 cm. It is designed to seamlessly integrate into various environments when combined with Regius SIGMA.

Four Film Sizes

DryPRO SIGMA is easy to operate, requiring no hands-on training upon installation and offering intuitive usability. Radiologists can use four types of films for different purposes. Simply open the front cover, retrieve the film inside and load a new one.

DryPRO Models 873 & 832

DryPRO 832

The DryPRO 832 dry laser imager delivers excellent productivity, boasting an unparalleled time to first print of 50 seconds and support of five film sizes, from 14x17" to 8x10". This full-spec, tabletop laser imager doesn't sacrifice performance or versatility.

DryPRO 873

A compact DryPRO 873 incorporates faster, quieter throughput for use in mid to high volume, multi-modality use, including full filed digital mammography. With the world's fastest dash speed, this laser imager can print 10 sheets of films size 14 × 17" within 4 minutes. The first printing time is about 50 seconds. The excellent stability provides high-quality images.

Five Film Sizes and Two Trays*

Five film sizes are available (14×17", 14×14", 11×14", 10×12", and 8×10") and by installing an additional film supply tray two film sizes can be used at the same time: e.g. 14×17" and 11×14" or 14×17" and 8×10". Time to first print, a major speed and productivity parameter, has been greatly improved to a short 50 seconds, dramatically enhancing productivity and workflow.

* Optional feature

Want more information?

Please contact InMed or refer to the manufacturer's website for up-to-date detailed technical information.

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