



KONICA MINOLTA

AeroDR HD

Wireless Digital Radiography System



Giving Shape to Ideas

AeroDR HD

AeroDR HD

Konica Minolta has developed the AeroDR HD: our most sophisticated detector with the highest resolution and sensitivity enabling

the highest image quality and lower radiation doses. From now on every image will be clearer than ever, allowing for even better analyses.

WHEN DETAILS MATTER: 100 μ m PIXEL SIZE

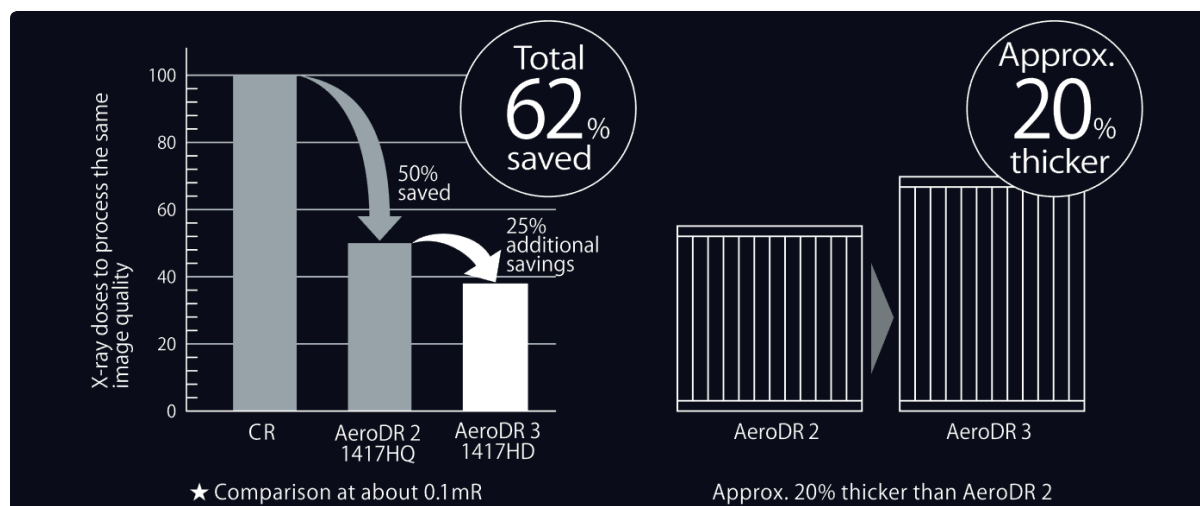
- ▀ Display micro structures
- ▀ Better visibility of trabecular bone
- ▀ Edge of the bone is more clear
- ▀ No “pixel shape” when zooming in
- ▀ Higher DQE and lower radiation doses
- ▀ Lightweight and robust structure
- ▀ Fast and reliable workflow
- ▀ Updated AeroSync for longer automatic exposure detection



HIGHER DQE & LOWER DOSE

Konica Minolta introduces the latest technological advances with the AeroDR HD “High Sensitivity TFT (Thin Film Transistor) detector”. The thicker CsI scintillator, a high sensitivity photo diode on the TFT panel and new ROIC (Read out IC), which can

reduce the electrical noise level by 50% or more, enables optimized detection values. Now we can provide patients and AeroDR users with higher Detector Quantum Efficiency (DQE) and lower radiation doses.



Thicker CsI Scintillator

The scintillator material is evenly distributed from the bottom to the top of the detector and it is more than 20% thicker than the AeroDR Premium panel. This helps providing the high DQE.

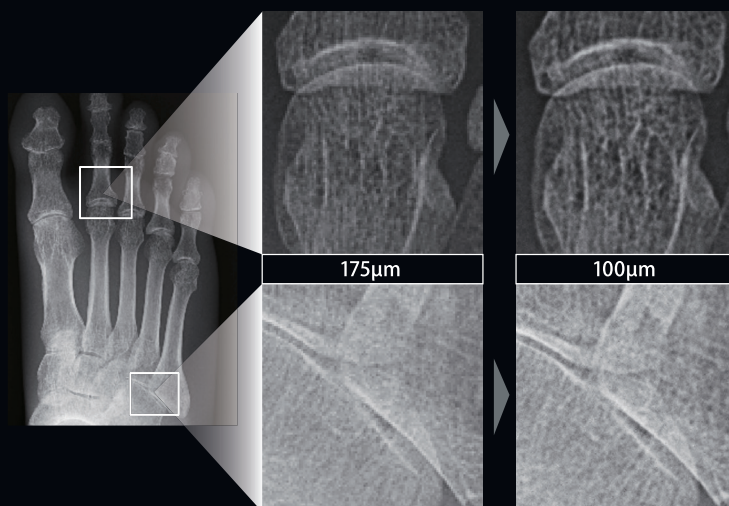
100 micron pixel size

For Radiography professionals who demand the highest level of confidence, the AeroDR HD has an astonishing pixel size of only 100µm!

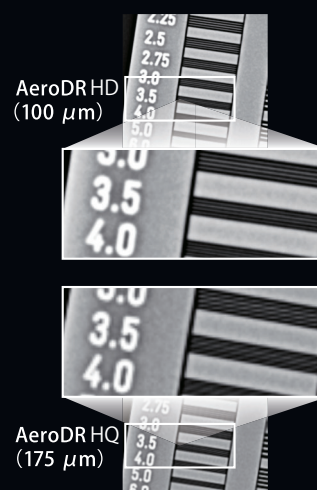
With 3488 x 4256 pixel count – up to 4 times more than standard resolution detectors, the AeroDR HD allows you to enlarge microstructures to conduct precise analyses required for extremities, pediatrics and other specialties where image details and dose efficiency are vital to diagnosis.

AeroDR HD sample image

The pixels are 100 microns across, and this small size helps ensure clear images.



- 100 micron pixels eliminate the effect of pixel shape on the image, even under high power magnification in the viewer.
- 100 micron pixels make it possible to display the micro structure within the image.



LIGHTWEIGHT AND ROBUST STRUCTURE

New Grip Design

Weighing just 2,6 kg (including powercell), the panel is lightweight, and a new grip design makes it even easier and safer to handle in your daily routine.

Load resistance

The world's highest load resistance of 400 kg and a 130 kg bending resistance; to withstand demanding conditions during bedside exams.

Bend Pressure

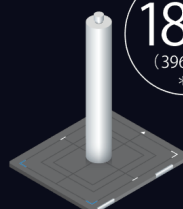
130 kg
(286.6 lb)
*3



*3 The test result does not provide any guarantee against damage or breakage.

Point load

180 kg
(396.8 lb)
*1



*1 \varnothing 40 mm (1.6 inches)

Surface load

400 kg
(881.8 lb)
*2



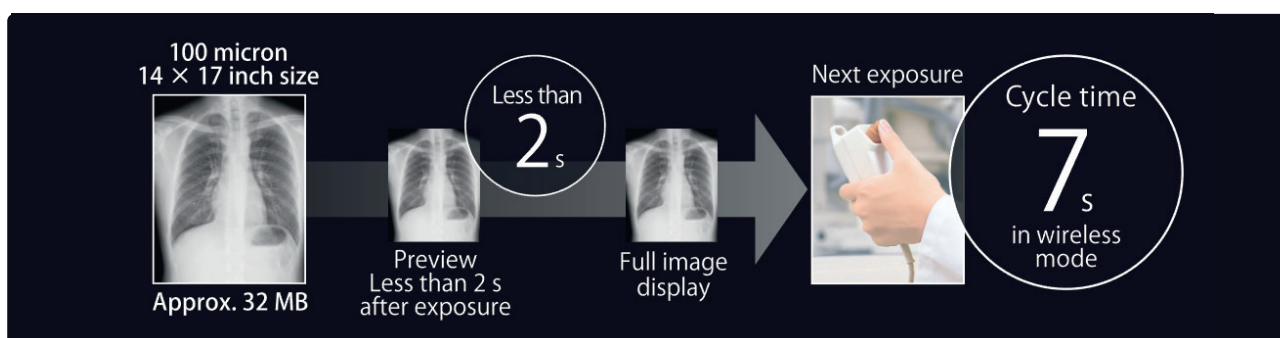
*2 @ effective image area overall

Waterproof

The AeroDR HD is waterproof (IPX6) even after the detector was dropped from a height of 1,2 m. This makes the detector very suitable for more extreme environments like trauma departments, ICU and disaster relief operations where it is more likely to be exposed to liquids and body fluids.



FAST AND RELIABLE WORKFLOW



Rapid Cycle time

The AeroDR HD can handle large image data and provide short cycle times even though the image is taken by 100 micron pixels.

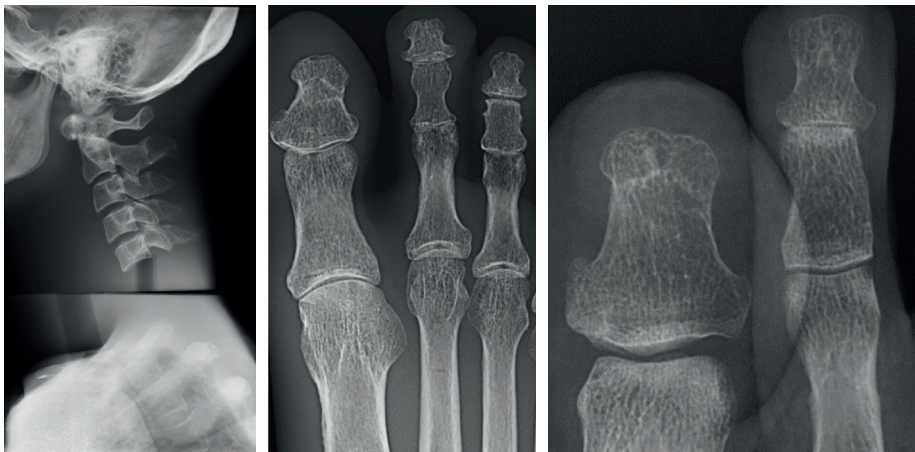
High Performance Capacitor

The AeroDR HD is powered by a Lithium-ion capacitor for high performance and safety. Both the AeroDR HD 1417 and AeroDR HD 1717 charge from 0 to 100% within 30 minutes or less. The AeroDR HD 1012 even charges within 20 minutes or less.



Updated Image Processing

Konica Minolta's new image processing enhances images in the low density part.



Sample images (C Spine lateral, Foot)

Updated AeroSync Technology

If the X-ray generator has low power or patient body parts are thick, the updated AeroSync technology of the AeroDR HD supports a wider range of exposure techniques than before. This includes:

- Lumbar spine (for thicker body parts)
- MSK (for Orthopedic)
- Veterinary, horses (for large body parts)

Exposures with AeroSync on AeroDR HD can go up to 4 seconds.

AeroDR HD new size & updated features:

AeroDR HD is available in 25x30 cm (10"x12"), 35x43 cm (14"x17") and 43x43 cm (17"x17"). The smaller panel is developed for the neonatal intensive care unit (NICU) and/or imaging fine structures such as the extremities; the 17"x17" is intended for larger anatomical areas such as the chest and abdomen. All AeroDR HD panels have a default pixel size of 100-micron to provide images with a high level of detail.

The AeroDR HD new features "Aero Link" and "Aero Storage" make the Konica Minolta AeroDR HD the ideal flat panel detector solution for both fixed and portable applications.

Aero Link

The AeroDR HD has an integrated internal Access Point (AP). An Access Point (AP) enables images to be sent directly to a Wi-Fi connected computer within seconds.

Aero Storage

The AeroDR HD has a built-in memory storage which allows taking images when the panel has been set to Aero Storage mode. This allows you to take multiple images without the computer connection. The Aero Storage stores up to 100 images.



AeroDR HD Technical Specifications

PRODUCT NAME	AeroDR HD 1012	AeroDR HD 1417	AeroDR HD 1717
Detection method	Indirect Conversion	Indirect Conversion	Indirect Conversion
Scintillator	CsI (Cesium Iodide)		
Pixel size	100 μ m*		
Inside Access Point	Yes (Aero Link)		
Inside Memory	Up to 100 images (Aero Storage)		
Weight	1,5 kg	2,6 kg	3,2 kg
Battery Type	Lithium Ion Capacitors		
External dimensions (WxDxH)	282 x 333 x 15 mm	384 x 460 x 15 mm	460 x 460 x 15mm
Charging time	20 min or less	30 min or less	30 min or less
Image area size	245,6 x 296,8 mm	348,8 x 425,6 mm	424,8 x 424,8 mm
Auto Exposure Detection (AED)	Available (AeroSync)		
Durability			
• Point load	180 kg @ ϕ 40 mm		
• Surface load	400 kg @ effective image area overall		
• Water resistance	IPX6 including power cell		
• Drop resistance	MIL-STD-810G		
Housing material	Carbon Monocoque Design		
Communication	Dedicated wired Ethernet connection / Wireless LAN (IEEE 802.11a/n (1) compliant)		
Cycle time	Ca. 5s (wired)	Ca. 6s (wired)	Ca. 6s (wired)
• 100 microns	Ca. 5s (wireless)	Ca.7s (wireless)	Ca. 7s (wireless)
Battery Performance	Up to 145 exposures and 3,9 hours(100 μ)	Up to 251 exposures and 6,9 hours(100 μ)	Up to 217 exposures and 6,0 hours(100 μ)
(Exposure linkage with X-ray unit)	Up to 165 exposures and 4,5 hours(200 μ)	Up to 309 exposures and 8,6 hours(200 μ)	Up to 276 exposures and 7,6 hours(200 μ)
Usable grid frequency	60lp/cm, 40lp/cm, 34lp/cm		
A/D conversion	16 bit (65.536 gradients)		
Encryption	Wireless encryption method: AES / Authentication method: WPA2-PSK		

* Default pixel size is 100 μ m, but can be set to 200 μ m to save storage space



AERODR HD.
WHEN DETAILS
MATTER.



KONICA MINOLTA