



DX-S for Digital Radiography

DX-S is a high-throughput, decentralized digitizer with state-of-the-art image quality

Hospitals are continually concerned with increasing efficiency and effectiveness, in order to meet the always-growing demand for high quality, affordable healthcare. Agfa HealthCare developed DX-S to address this requirement by dramatically improving CR performance.

DX-S is a high-throughput and flexible digitizer which combines two innovative and exclusive Agfa HealthCare technologies – DirectriX phosphor plate technology and Scanhead high-resolution scanning. The resulting increase in X-ray absorption and conversion efficiencies allows a significant patient dose reduction. DX-S has also been designed to bring a full range of imaging exams directly to the point-of-care in General Radiography, Paediatric and Emergency environments.

The cassette-based workflow makes it easy to use wherever needed, thanks to trouble-free positioning, portability and flexibility of application. DX-S interfaces with the NX workstation and DX-Si X-ray system, for an integration that ensures better workflow efficiency and improved operability. Its performance exceeds anything else currently available on the CR market.

- Unites two unique Agfa HealthCare technologies – DirectriX™ and Scanhead™ – to provide a high level of image quality, speed and flexibility
- Enables a reduction in X-ray patient doses through the exclusive DirectriX detector technology.
- Is designed to bring a full range of imaging exams directly to the point-of-care.
- Combines with the NX workstation and DX-Si X-ray system to form the DX-Si integrated digital radiography solution.

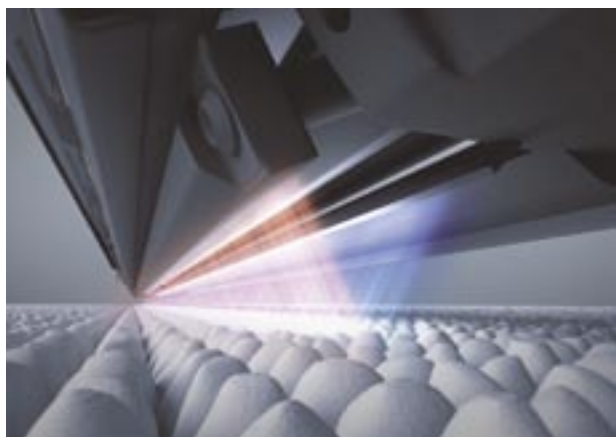


Precision image quality and reduced X-ray dose
- DirectriX

DirectriX needle-based detector technology uses a crystal phosphor that allows higher packing density and layer thickness than is offered by powder phosphor when used in a binding material. In addition, the crystal phosphor's reduced light spread increases sharpness. As a result, the detector's X-ray absorption and conversion efficiencies are greater, leading to significant patient X-ray dose reduction.

High speed imaging - Scanhead

Scanhead technology enables high resolution scanning of the DirectriX detector with a scanning resolution equal to 50 μm (20 pixel/mm). This line-to-line scanning provides an accelerated read-out resulting in a fast preview image and a high cassette throughput of up to 130 cassettes per hour. Furthermore, unlike point-to-point scanning, the very compact design integrates stimulation and light collection into one, convenient Scanhead module.



Flexible, compact, cassette-based design

DX-S has a compact, cassette-based design that makes it the flexible solution for decentralized environments and in-room use. The easy arrangement of the DX-S cassette results in a perfect fit between the anatomy and the positioning, and reduces the time spent posing patients for difficult exams. Thanks to the portability of the cassettes, DX-S is the ideal application in places such as neonatal intensive care. At the same time, the digitizer covers a wide range of difficult exams. This combination of portability and flexibility make the DX-S an excellent digitizer for GenRad, Paediatrics and Emergency use.



Patient proximity

By locating the DX-S digitizer in examination rooms, technologists are able to remain with their patients during image acquisition, processing and quality control, for a higher patient satisfaction, especially for children. Additionally, the technologist benefits from the efficient and practical usage, for a better time management.

DX-Si: Integration for better interoperability

The DX-S interfaces with both the NX workstation and the DX-Si X-ray system to create Agfa HealthCare's integrated digital radiography solution: DX-Si. DX-Si provides state-of-the-art image quality, versatility, integration, high-throughput, patient proximity and a solid return on investment. The result is the high image quality, greater workflow efficiency and improved patient care healthcare facilities want.



SAFETY

Region	Regulation	X-Ray	Laser
Europe	EN 60601-1: 1990 + A1: 1993 + A2: 1995 EN 60601-1-2: 2001	Regulation: 1987	EN 60825 - 1:2001
USA	UL 60601 21 CFR part 820: good manufacturing practice for medical devices	DHHS/FDA 21 CFR part 1002, subchapter B	DHHS/FDA 21 CFR parts 1040, 10 and 1040, 11
Canada	CSA22.2 No.601.1 No.601.1.2		

technical

SPECIFICATIONS

DX-S DIGITIZER

Single cassette feed

Throughput:

Cassette format	Throughput/h	1 cassette
35 x 43 cm	115 cassettes	31 sec
24 x 30 cm	130 cassettes	28 sec
18 x 24 cm	130 cassettes	28 sec

After patient ID:

Cassette format	Cassette Cycle Time
35 x 43 cm	22.2 sec
18 x 24 cm	19.9 sec

LCD display

- Machine status and error conditions

Greyscale resolution

- Data acquisition: 16 bits linear/pixel
- Output to processor: 12 bits/pixel

Dimensions and weight

- (W x D x H): 33 x 79 x 85 cm
- Weight: Approx.: 105 kg

Power

- Single phase only
- 50/60 Hz Installations: auto ranging power supply to cover a voltage from 100 V -10% to 230 V + 10%

Environmental effects

- Noise level: max. 65 dB (A)

HD 5.0 CASSETTE SIZES

- 35 x 43 cm
- 24 x 30 cm
- 18 x 24 cm
- 15 x 30 cm



technical

SPECIFICATIONS

GENERAL

Environmental conditions

- Temperature: 15 - 30 °C (59 - 86 °F)
- Humidity: 15 - 80% RH
- Magnetic fields: max. 12.60 μ T in conformance with EN 61000-4-8: level 3
- Rate of change of temperature: 0.5 °C/minute (0.9 °F)

Safety

Approvals

- TÜV, UL, cUL, CE

Transport details

- Temperature: -25 to +55 °C (-4 to 131 °F), -25 °C for max. -72 hours, +55 °C for max. 96 hours
- Humidity: 5 - 95% RH

AIO CART – ALL-IN-ONE CART

Option 1 : ALL-IN-ONE CART consists of:

- The DX-S digitizer
- The NX operator workstation
- The UPS for digitizer and workstation
- Cassette storage for up to four large formats

Option 2 : CUT DOWN ALL-IN-ONE CART consists of:

- The DX-S digitizer
- The NX operator workstation
- The UPS for digitizer and workstation

Option 3: Consists of option 2 as separate components (no all-in-one cart)



DX-S can form part of Agfa HealthCare's DX-Si integrated solution, in combination with NX and the DX-Si X-ray system. Please refer to the DX-Si X-ray system and NX datasheets for more information.

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Agfa HealthCare N.V. has been awarded the ISO 9001 certificate by Lloyd's Register Quality Assurance and the ISO 13485 certificate for the design, development and production of imaging and communication solutions for healthcare applications.



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