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-S*i* 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-S*i* X-ray system to form the DX-S*i* integrated digital radiography solution.

DirectriX
microspot

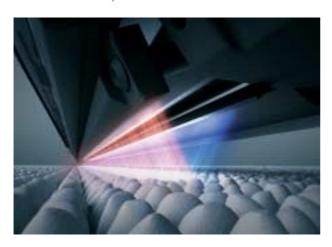Scanhead
Technology

AGFA
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HealthCare

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-S*i*: Integration for better interoperability

The DX-S interfaces with both the NX workstation and the DX-S*i* X-ray system to create Agfa HealthCare's integrated digital radiography solution: DX-S*i*. DX-S*i* 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 μT 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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H e a l t h C a r e