



# Specifications

## CR35-SP+ General Technical Specifications

### Digitizer Type

- CR 35-X Single Plate Reader
- Throughput: up to 73 plates/hr (depending on size and application)

### LCD Display

- Machine status and error conditions

### Grayscale Resolution

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

### Reader Dimensions and Weight

- (W x D x H): 45 x 75 x 141 cm (17.7 x 29.5 x 55.5 in)
- Depth at cassette slot: 73 cm (28.7 in)
- Weight: Approx. 210 kg

### Power

- 120V/60Hz (USA)
- Standby 216 W, max. 1440 W, 15A fuse

### Miscellaneous

- 19" Medical-Grade Touchscreen Color Monitor
- CR NX Server: Dell Precision Workstation (min) 3.6 GHz, 2x73GB HD, CD-RW, Windows XP OS

### Environmental Conditions

- Temperature: 15 to 30°C (59 to 86°F)
- Humidity: 15 to 75% 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)

### Environmental Effects

- Noise level: max. 65 dB (A)
- Heat dissipation: standby 350 W, max. 2000 W

### 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 to 95% RH

## Cassette Sizes: CR MD4.0 General Cassettes

\*\* Included in Quantum/Agfa CR35-SP+ Series Package.

### CASSETTE SIZES

#### High Resolution

35 x 43 cm (14 x 17 in)\*\*

35 x 35 cm (14 x 14 in)

35 x 43 cm

(automatic collimation to 21 x 43 cm)

24 x 30 cm\*\*

18 x 24 cm

15 x 30 cm

8 x 10 in

10 x 12 in

#### Standard Resolution

35 x 43 cm (14 x 17 in)

35 x 35 cm (14 x 14 in)

### SPATIAL RESOLUTION

10 pixels/mm (option)

10 pixels/mm (option)

10 pixels/mm

10 pixels/mm

10 pixels/mm

10 pixels/mm

10 pixels/mm

10 pixels/mm

6 pixels/mm

6 pixels/mm

### PIXEL MATRIX SIZE

3480 x 4240

3480 x 3480

2020 x 4240

2320 x 2920

1720 x 2320

1420 x 2920

1950 x 2460

2460 x 2970

2320 x 2826

2320 x 2320

## The Quantum/Agfa CR35-SP+ Package Includes:

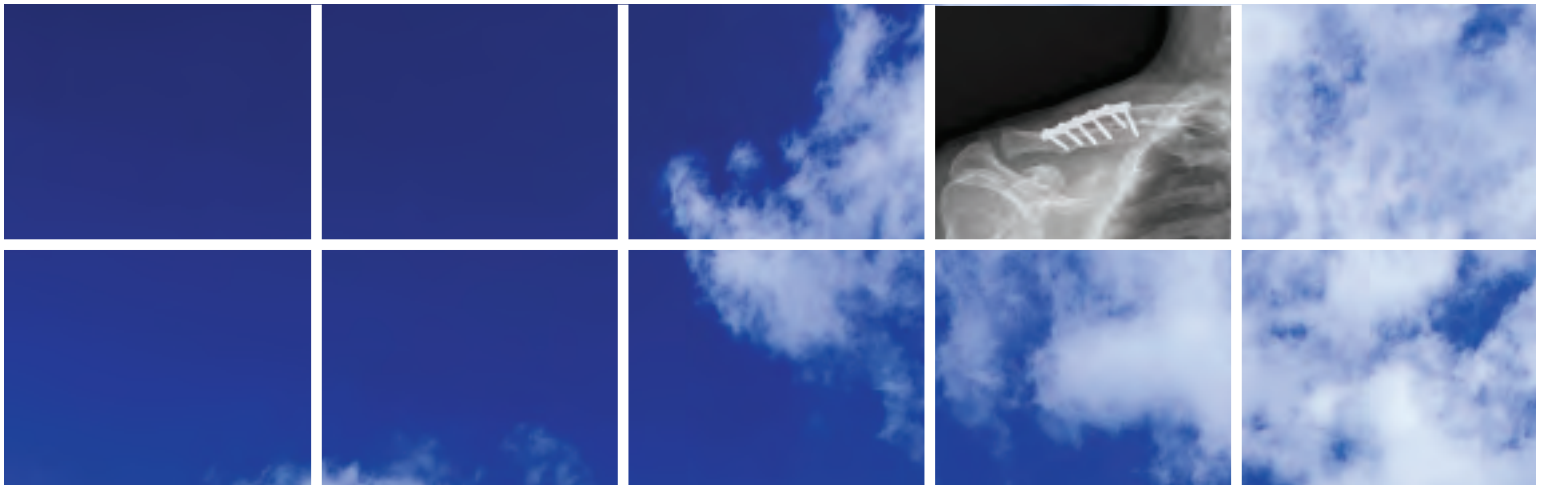
- CR 35-X Single Plate Reader
  - with Automatic Cassette/Plate Handling
- CR NX Workstation
- Dell Optiplex™ Workstation, with Dual Core Processing
  - CD-RW Drive, Keyboard, Mouse,
  - Microsoft Windows XP Pro SP2 OS (minimum specification)
- 19" BARCO Color Touchscreen Monitor with DICOM Optimizing Calibration Software
- CR NX SP Enterprise Software
- Patented MUSICA<sup>2</sup> Image Processing Software
- CR NX Precision Tools Software
- CR NX ID and Examination Software
- DICOM Store/Send and DICOM Print
- "P-Value" Display Output For Compatible PACS
- DICOM CD Export For DICOM CD Burning With a Viewer
- 2 each 35x43 Cassette With MD 4.0 Imaging Plates
- 2 each 24x30 Cassette With MD 4.0 Imaging Plates



Innovations in Digital Imaging



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# CR35-SP+

Computed Radiography (CR) System



# CR35-SP+ Package

## An Agfa Healthcare Solution for Quantum Medical Imaging

The CR35-SP+ Package is a versatile package that includes the robust CR35-X digitizer. It offers an ideal solution for any decentralized or distributed CR environment, but is also a perfect compliment to an existing centralized CR85-SP+ system, offering additional workflow, back-up and redundancy. The CR35-SP+ system provides a thru-put of up to 73 plates an hour, depending upon sizes and applications. In combination with optional application-specific plates and cassettes, the CR35-SP+ system supports a broad range of applications:

- General Radiography
- Pediatrics
- Orthopedics
- Dental-Panoramic
- Trauma
- Portables

### The Most Frequent Tasks Are The Easiest To Do

NX is the technologist's image identification and quality control tool. NX was designed by technologists and has an intuitive user interface that offers streamlined patient workflow. Thanks to this interface, the system provides improved flexibility and efficiency. With the intuitive user interface, only minimal training is needed to work effectively on NX, increasing overall staff productivity.

NX's Worklist and Examination windows cover the technologist's daily tasks. In the Worklist window, the technologist can enter patient data or select it from an RIS-based worklist (optional), while in the Examination window, he or she can identify a cassette, define the examinations to perform and take the necessary steps to prepare an image for diagnosis. The Examination window's Fast Preview allows correct positioning and exposure to be determined even while the final image is in the process of being completed.

### Agfa MUSICA<sup>2</sup>

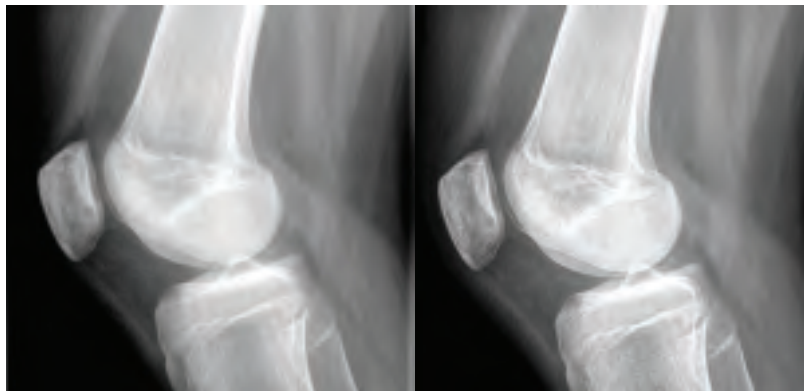
- MUSICA<sup>2</sup>, intelligent image processing algorithm automatically optimizes bone and soft tissue visualization with outstanding sharpness and contrast in the finest details to minimize the need for post-processing and to increase workflow efficiency.



Shown with Integrated CR User Station (CRUS) for time-saving identification and optimized workflow, as well as cassette storage

MUSICA<sup>1</sup> Image

MUSICA<sup>2</sup> Image



# The CR35-SP+ Package Includes Software Loaded With Functionality:

## CR NX On-line Processing and MUSICA<sup>2</sup> Software

- On-line processing software performs multiple tasks :
  - Automatic Image processing (utilizing MUSICA<sup>2</sup>) of incoming raw data from the CR unit
  - Automatic window/level setting
  - Manual "black-border" shuttering collimation
  - Sensitometry mapping
  - HIPPA security log and IHE workflow compatibility
  - Supplies user with a fundamental QC-Viewer for basic image correction

## NX Precision Tools Software

- NX Precision Tools Include:
  - Annotations (advanced/programmable) Tools
  - Ortho Measurement Tools
  - Digital Imaging Measurement Tools
  - MUSICA Image Processing Control Panel

## Details of Precision Tools

- Advanced Annotations Content
  - Patient positioning markers (available on both Examination and Editing screens)
  - Zoom/roam image
  - Add predefined text
  - Add free text with/without arrow
  - Invert image
  - Apply shutters
  - Show/hide histogram
- Advanced Measurements Content
  - Linear and circular calibration
  - Angle
  - Surface measurement of a circular
  - Rectangular
  - Free hand or polygonal annotation
  - Distance measurement
  - Leg length difference measurement
  - Scoliosis measurement
  - Perpendicular
  - Line with midpoint
  - Set different colors

## Add an Option, Brighten Your Digital Future

- NX Optiview:
  - Square Marker, Grid Line Suppression and Black Border licenses
- NX Integrated Workflow:
  - Emergency, MPPS and Viewing Prior licenses
- NX Quality Assurance:
  - Dose Consistency Reporting and Repeat/Reject program licenses
- NX RIS Connectivity:
  - Link to DICOM RIS-HIS, DICOM query and Procedure Code Mapping software
- Mobile Kit:
  - Appropriate for mobile use (van, military, cruise ships, etc.)

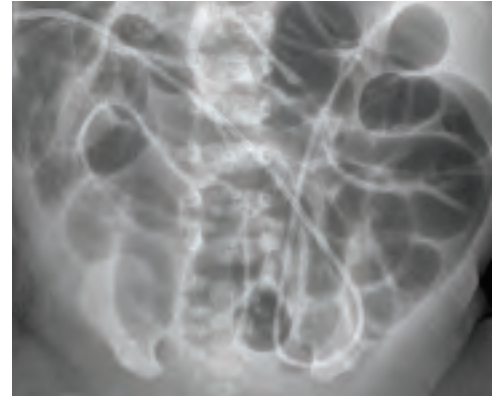
## Scoliosis and Long Leg Imaging Option

- CR NX Full Leg/Full Spine Stitching Software
- Cassette Holder with Planfeld Positioning Grid Pattern
- CR EZ-Lift, FLFS Cassettes and Anti-Scatter Grid

## CR User Station

Its modular and ergonomic design includes:

- Cassette identification functions
- Space for:
  - Workstation for image handling, processing and dispatching
  - Monitor, network switches and UPS (optional)
  - Cassette storage



19" BARCO Color Touchscreen Monitor



CR 35-X can easily be placed at any location.

\*For a complete list of available options please contact your local distributor.

# MUSICA<sup>2</sup>

## Advanced Image Processing (Optimizes Image Quality and Workflow)

Agfa HealthCare's unique and patented Multi-scale Image Contrast Amplification algorithm, "MUSICA", automatically processes the radiographic image at multiple frequency ranges (detail sizes) and optimizes the contrast within each of these ranges.

MUSICA<sup>2</sup> is second generation MUSICA which intelligently renders exceptional bone and soft tissue detail simultaneously. MUSICA<sup>2</sup> analyzes the image data before applying optimal contrast and density to all details within the image.

MUSICA<sup>1</sup> Images

MUSICA<sup>2</sup> Images

This results in maximum radiographic detail throughout the image, greatly reducing the need for manual activities such as window and level. The improved image quality, productivity and workflow result in a process that is more efficient from start to finish.

### Higher Image Quality

- Image processing optimized to the response of human visual system, results in higher image quality, autonomy and robustness. Enhance bone and soft tissue detail, displayed in a single image, eliminating contrast or density compromise.



### Increased Workflow Capability

- Processes the image automatically, virtually eliminating the need for routine window and leveling, allowing the technologist to stay close to the patient.



### Improved Care and Throughput

- Greater image detail and quality helps radiologists to make diagnoses more quality and with a higher level of confidence, ultimately providing an efficient patient care experience.

