

PURCHASE ORDER: 553-B90045

REQUESTING SERVICE: DIAGNOSTIC RADIOLOGY

SHIP TO: VAMC DETROIT

V.A. Medical Center

CHIEF ACQ. MGMT. 001R -A

4646 JOHN R STREET

DETROIT, MI 48201

DELIVERY LOCATION : C3617 (EER 55753)

TRADE IN GE MODEL 3114 (2011) SN 977815 EE# 64876

**Qty**

**Item Description**

1

**Ysio Max**

Ysio Max is a complete family of digital radiography solutions that recognize the individuality of your clinical imaging routine and can be perfectly tailored to match your imaging requirements. Different optional levels of system automation and remote control enable a perfect balance of patient focus and economic success.

This universal digital radiographic workplace for skeletal radiography of the recumbent, standing or seated patient utilizes up to four permanently installed or wireless flat detectors.

The syngo FLC digital one-stop workflow from patient registration to image documentation offers fast and easy operation for consistent exam settings and a consistent image impression\*.

Following items are included in the standard delivery:

- Optitop tube
- 65 kW generator
- Keyboard/Mouse
- Grid holder
- Storage capacity: 10.000 RAD images
- CD / DVD recorder

\* The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).

1

**Bucky Wall Unit with MAX static**

Floor-mounted Bucky wall stand with height-adjustable and tiltable detector tray with a MAX static flat detector for digital acquisitions. With IONTOMAT three-field chamber and Bucky frame. Detector Bucky operated from the right side. Vertical height adjustment and detector tilt possible from both sides.

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**Ysio Table with MAX static**

Bucky table in compact design, for X-ray exposures of the entire body. The tray cannot be pulled out.

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**MAX wi-D**

Light - weight mobile, wireless 35 cm x 43 cm (14 x 17) detector with handle for comfortable and safe handling. The detector can be used with all other MAX systems based on the MAXswap feature.

Qty	Item Description
1	<p>It can be charged automatically in the system's detector holder.</p> <p><b>MAX wi-D Clip-on Grid 5/85 F115</b>  Grid (5/85), f 115 cm  Highly selective anti-scatter grid for scattered radiation reduction:  - Pb 5/85 (grid ratio 5:1, 85 lines/cm)  - Grid focusing for SID 115 cm (45)</p>
1	<p><b>MAX mini</b>  Mobile, wireless flat detector sized for cassette format 24 cm x 30 cm (12" x 9"), for orthopedic, pediatric, and trauma acquisitions. Especially fits into incubator trays. The detector can be used with all other MAX systems based on the feature MAXswap.</p> <p>Please note: Requires separate MAX wi-D / MAX mini charger.</p>
1	<p><b>MAX mini Clip-on Grid 5/85 F115</b>  Clip-on grid for MAX mini. Highly selective transparent grid for reducing scattered radiation.</p>
1	<p><b>Charger f. MAX wi-D and MAX mini</b>  This charger can be used to charge the spare batteries for the MAX mini and MAX wi-D detectors.</p> <p>Please note: The MAX mini battery can only be charged with this charger.</p>
1	<p><b>Transparent grid 13/92, Universal</b>  Highly selective anti-scatter grid for scattered radiation reduction.</p>
1	<p><b>Transparent grid 15/80, F300</b>  Highly selective scattered radiation grid to reduce radiation scatter. Focused to 300 cm.</p>
1	<p><b>Aim FAST</b>  Aim FAST automated ceiling-mounted X-ray tube support.</p> <p>Aim FAST is Ysio's unique positioning system, with free, simultaneous movement of up to 6 axes. It provides fast and certain movement to the acquisition position.</p>
1	<p><b>Tabletop recognition</b>  Tabletop sensing takes account of the position of the tabletop during collision monitoring. This prevents the system from traveling at a slower speed during follow-up movement if the tube is near the table.</p> <p>Note: Option with Aim FAST</p>
1	<p><b>80 kW Upgrade</b>  An upgrade of the high-frequency X-ray generator from 65 kW to 80 kW power, to improve performance and expand the spectrum of possible applications.</p>
1	<p><b>Manual Control Bucky Wall Unit</b>  Wired remote control for system functions.</p>
1	<p><b>Manual Control Ysio Table</b>  Wired remote control for system functions.</p>
1	<p><b>Upgr foot kick switch front &amp; rear</b>  Foot switch at the Ysio table base for hands free table height adjustment and tabletop float release.</p>

Qty	Item Description
1	<b>Wireless Remote Control Ysio Max</b> Wireless remote control with the SmartMove button for system positioning.
1	<b>SmartOrtho License</b> SmartOrtho is an automated tilting technique for long leg and full spine imaging. Up to 4 single images can be acquired to cover the selected region with the patient in standing or lying position. The images are automatically composed into a single image on the imaging system.
1	<b>19Color Flatscreen Display</b> LCD color flat screen display with high luminance and extended field of view.
1	<b>DICOM WORKLIST &amp; MPPS</b> Import of patient/examination data from an external RIS (Radiology Information System) /HIS (Hospital Information System) patient management system with DICOM MWL (Modality Worklist) as well as feedback on the examination status with DICOM MPPS (Modality Performed Procedure Step).
1	<b>Advanced security package</b> Software extension for workplaces adding advanced security features. It includes advanced user management (active directory integration, individual password management, user authorization), audit trail management (detailed tracking of user and system actions, centralized automated logging) and DICOM encryption.
1	<b>Caremax plus HS Integrated</b> CAREMAX plus DAP meter for measuring the dose-area product (DAP) and/or standardized patient entry dose. Resolution 0.01 µGym².
1	<b>Laser light localizer</b> Additional laser line light localizer to form a 90° laser light cross for improved target setting and patient positioning.
1	<b>Detector holder lateral</b>
1	<b>Battery MAX mini and MAX wi-D</b>
1	<b>MAX wi-D wall charger</b> The wall charger safely stores one MAX wi-D wireless detector and charges it at the same time. The imaging system automatically detects which MAX wi-D detector is placed in the wall holder.
1	<b>VA Kit</b> Second set of documentation for Veterans' Affairs Administration Hospitals in the U.S.
1	<b>Clinical Education &amp; Training: Option 2</b> Siemens offers multiple options for clinical education and training on your new system. These options enable a more personalized approach to the introduction to system operation, features, and benefits and will help ensure that your technologists and physicians have the opportunity to engage in the level of training that best meets your current clinical needs and business objectives.  The following items are the education and training modules are highly recommended for the operation of your new Siemens system and are most effective for sites where technologists and/or physicians have some experience on Siemens' systems. This option provides additional opportunities to learn more specialized procedures and/or the ability to further increase efficiencies.
1	<b>Initial onsite training 24 hrs</b> Up to (24) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training

**Qty****Item Description**

will cover agenda items on the ASRT approved checklist. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

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**Follow-up training 12 hrs**

Up to (12) hours of follow-up on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

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**Remote Mapping Acceleration**

For new system mapping and/or database configuration, Siemens will work remotely to configure the provided information to help accelerate the transition to the new system. The correct RIS worklist must be provided by the customer in a format specified by Siemens to prepare the new parameters for loading into the new system. This educational offering must be completed the later of (12) months from install end or purchase date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

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**e.learning CEU subscription (12 mths)**

This (12) month multi-modality e.learning subscription will provide access for (10) imaging professionals at the customer site to utilize up to (50 CEUs). This educational offering must be completed (12) months from date of purchase order. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

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**Ysio 2DA Max Configuration**

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**Standard Rigging DigRad**

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**Eaton 5P 850G Tower UPS**

850VA / 600W

Input: IEC C14

Output: (6) IEC C13

Dimensions (H x W x D): 9.1 x 5.9 x 13.6

Weight: 23.0 lbs.

Run Time @ Full Load: 4 min.

Run Time @ Half Load: 14 min.

This product is not OSHPD certified.

Includes two year limited warranty with depot exchange through Eaton.

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**Portable DR Panel Protector(14x17)**

The unique design of the DR Panel Protector provides an easy way to take weight-bearing x-rays of feet (AP view). The unit is simply placed over the DR panel which is first positioned on the floor. Patients step onto the DR Panel Protector with as much weight as needed to get the desired image. The face plate is made of polycarbonate designed to support patients weighing up to 500 pounds. The face plate is x-ray lucent, allowing the x-rays to pass through the DR Panel Protector with no significant absorption or scattering. The non-slip rubber floor grips keep the DR Panel Protector from slipping on a hard floor. The Panel Protector frame is notched to accommodate the cable connection from the digital DR panel to the host system. One year warranty through Clear Image Devices

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**teamplay Welcome & Registration Package**

teamplay is a cloud-based network that brings together your imaging modality users, the systems' dose and utilization data, and the users' expertise to help you improve the delivery of care to your patients. Basic features are provided free of charge. Premium features

**Qty****Item Description**

(benchmarking, non-Siemens devices) are provided on a trial basis for three months at no charge, and may be used thereafter on a subscription fee basis.

To register: <http://teampay.siemens.com/#!/institutionRegistration/1>

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**YSIO/YSIO MAX Complimentary Biomed Training**

This educational offering includes system training tuition for 1 clinical engineering professional on the YSIO or YSIO MAX system, and the syngo multimodality workstation as applicable. The training curriculum depends on and is limited to the system purchased and may include multiple courses including classroom training in USA or an international site, and/or virtual and web-based training. Additional modality basics training may be required as a prerequisite to these courses and must be purchased separately. This system training includes a 15% discount. Travel and lodging are not included. This educational offering must be completed by the later of (12) months from purchase or install end date; if training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund. This forfeiture does not apply to Federal government agencies.

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**Multipurpose stand ruler and holder**

Ruler for measurements on acquired images (e.g. on composed long leg images). The ruler holder slides onto a rail at the column of the stand and can be adjusted according to region of interest.

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## OPTIONS

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## OPTIONS

Qty	Item Description
1	<b>Planigraphy / Tomo</b> Electronic tomographic device for linear tomography technique (planigraphy) with an SID of 115 cm or 102 cm.
1	<b>ClearRead Bone Suppression HW+L</b> ClearRead Bone Suppression from Riverain Technologies automatically suppresses the display of bone in digital chest X-rays. This results in an enhanced soft tissue image for more detailed and accurate detection of pulmonary nodules. Since ClearRead Bone Suppression utilizes the original radiography for post processing, the patient is not subjected to additional radiation and motion artifacts do not arise.
1	<b>Patient positioning mattress</b> Radiolucent table pad with a heavy-duty, soft, light-colored plastic cover that is easy to clean. The soft cushion allows comfortable patient positioning and repositioning. To prevent the pad from sliding during head-up positions, the straps of the patient table pad can be attached to the grip protection rail at the head end. The soft cushion allows comfortable patient positioning and repositioning.
1	<b>Mobile detector holder for Max wi-D</b> The versatile holder accommodates computed radiography (CR) cassettes and light portable DR Panels (including the max wi-D detector) with a total weight (including clip-on grid if required) of less than 4.3kg (9.5 lbs). The holder rolls on large locking castors and facilitates examinations in accident and emergency departments, in operating rooms and radiographic rooms. The heavy duty base gives a low center of gravity. Properties: The holder is adjustable for height from floor level to 50 in (measured from its lower edge) The holder is counterbalanced for easy rising or lowering and can overhang the x-ray or operating table by 24 in. Supports detectors with a width of 9.6 to 21 in Maximum detector thickness 1.2 in (including clip-on grid if required) The holder can be turned & tilted and orientated to suit any examination position Effective locks keep the holder firmly in place

# Detailed Technical Specifications

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## Description

Ysio Max is a universal digital workplace with various flat detectors (MAX wi-D, MAX static) for image acquisition.

The Ysio Max digital workplace is especially suited for a high patient throughput. As a universal workplace, the system is primarily used in X-ray departments of hospitals, in radiological and partly radiological offices with high patient throughput and standardized acquisition techniques.

### Basic system components:

- A ceiling-mounted tube support with X-ray tube and a motorized collimator
- An imaging and control station with software for workflow handling, image acquisition, postprocessing and archiving as well as DICOM system interfaces
- CD/DVD drive for digital image storage on CD-R/DVD for offline data exchange in DICOM format
- One compact cabinet for generator and system power supply

### Ceiling mounted tube support with X-ray tube assembly and motorized collimator.

- All projection-relevant tube positions can be manually adjusted with handles symmetrically mounted to the tube head
- The ceiling-mounted tube support has 3 axes for longitudinal, transverse, and height adjustment (x, y, and z axes)
- Horizontal travel range in longitudinal direction 346 cm
- Horizontal travel range in transverse direction 220 cm or 355 cm (depending on room planning). Vertical lift 180 cm. In combination with a bucky wall stand the tube support offers tracking in height direction with up to 0.3 m/s
- The tube head can be manually adjusted in 2 additional axes ( $\alpha$ - and  $\beta$ -axis) for oblique exposures of recumbent patients, horizontal, oblique, or lateral exposures on the portable detector, or freely positioned bedside exposures
- Rotation around the vertical axis of the ceiling-mounted tube support from +154° to -182°. Detents every 90°
- Rotation of  $\pm 140^\circ$  around the horizontal axis of the tube head. Detents at 0° and  $\pm 90^\circ$ . Maximum speed 40°/s

### X-ray tube OPTITOP 150/40/80 HC-100:

- Single-track, dual-focus rotating anode tube with compound anode (rhenium-tungsten, molybdenum, graphite)
- High heat storage capacity and high thermal load capacity for small focal spots. Integrated overpressure safety device in the tube protective housing.
- 150 kV nominal voltage acc. to IEC 60613.
- Nominal radiographic anode input power acc. to IEC 60613 (focal spot nominal values acc. to IEC 60336): 47 kW: small focus 0.6 / 85 kW: large focus 1.0
- Anode speed  $\geq 9000$  rpm
- Anode angle 12°
- Heat storage capacity of the anode 580 kJ (820 kWh) acc. to IEC 60613.
- Total filtration (IEC 60601-1-3)  $\geq 2.5$  mm Al equiv.

### Collimator:

- With full-field light localizer with very efficient 4 W high power LED technology; high energy efficiency enabling low-noise design without external cooling system, lifetime approx. 100.000 h
- Laser line light localizer for precise alignment to the X-ray centerbeam even in challenging positioning situations.
- Rectangular collimation, manual and motorized, can be preset via organ programs.
- Via a memory button the collimation of the acquisition format set last can be retrieved.

## Description

- Collimator can be rotated by  $\pm 45^\circ$  around the center beam axis, e.g., to minimize the collimation field for objects which are not aligned to the longitudinal or transverse axis of the tube.
- A tape measure is integrated to check the focus-to-object distance.
- For the dose saving through the reduction of low energy (soft) radiation copper filters (0.1 mm Cu; 0.2 mm Cu and 0.3 mm Cu) are inserted into the primary beam projection, depending on the organ program selected. They can also be selected manually.
- Inherent filtration of 1mm Al at 70 kV

A dose area product (DAP) measuring chamber can be integrated as an option into the collimator.

### X-ray generator

- Microprocessor controlled 100 kHz high frequency generator with 65 kW nominal power (IEC 60601-2-7)
- Highly accurate radiographic parameters, precise reproducibility and fast regulation of high voltage and tube current
- 40 kV to 150 kV tube voltage range
- 1 mA to 1000 mA
- 0,5 mAs to 800 mAs
- Min exposure time: 1ms
- Supports 1- , 2- and 3 point autoexposure techniques
- Supports falling load operation for minimum exposure time
- Optional line matching transformer for 3-Ph-440 V / 480 V
- Drives 3-phase high speed tube stators

### Controls and displays

- The control elements on the tube head and the collimator are ergonomically arranged for single-handed operation.
- MAXtouch is a multifunctional control display on the tube head with color touchscreen for setting all key exposure parameters conveniently in the examination room. The display follows the tube orientation.

The following data is displayed:

- Patient name and identifier
- The examination order
- The collimation size of the acquisition field (in cm x cm).
- The set source-image distance (SID).
- The selected copper filters.
- Rotation from the 0-position.
- Tube assembly and detector centering.
- Operating states such as "ACSS/Manual", "Ready", "Selected", etc.
- Current detector angle (MaxAlign function) - estimate of the tube unit angle no longer necessary, provides patient protection by reducing repeat exposures. Available with MAX wi-D and MAX mini.

The following operations are possible on MAXtouch

- Selection of the workplace: Bucky wall stand, table or free exposure with MAX wi-D with corresponding changes in the organ program parameters
- Modification of the sequence of registered organ programs
- Modification of kV, mAs and ms
- Film density correction and focal spot selection
- Modification of the detector sensitivity/dose
- Selection of IONTOMAT chambers for automatic exposure control
- SID (source-image distance) measurement with automatic calculation of image magnification factor

WiFi system components for operating the MAX wi-D und MAX mini wireless detectors



## Description

Imaging system (syngo FLC)

- The entire control and communication of the radiography system including digital image processing takes place from a central operating site - the imaging system. The imaging system is specially designed for diagnostic radiology and delivers excellent image quality with a fast and seamless workflow

It includes:

- A high-end PC imaging system, based on Windows 7 with syngo user interface.  
Storage of original data 14 bit.  
Storage of image data 12 bit.  
Storage capacity approx. 10,000 images.
- Keyboard and mouse.
- One 19" (diagonal measurement) color flat-screen display as the control or diagnostic display.
- Dual stage handswitch for exposure release.

### Functions of the imaging system

#### Patient and study administration:

- Retrieval of patient list and examination data from the hospital/radiology information system (HIS/RIS)
- Manual (emergency) patient registration
- Patient, study, and image data management
- Configuration functions
- Password input for controlled access

#### Acquisition and postprocessing:

- Organ program selection and configuration
- Selection of generator and AEC parameters
- Parameterization of image preprocessing: Enhancement, harmonization, edge enhancement, and look-up tables (LUT)
- Display of current exposure between 1.5 and 3.5 seconds (preview); complete image in 3.5 to max. 6 seconds depending on detector type
- Marking, annotation, image comments, R/L markers
- Quantification with angle/distance measurement
- DiamondView MAX is a specially multispatial filtering procedure that optimizes the image display specifically for different organ regions allowing precise detail visualization even with large differences in absorption, such as in bone and soft tissue

#### Image processing functions:

- Fit to window view of full image
- Image rotation
- Image mirroring horizontal / vertical
- Image zoom
- Panning
- Windowing
- Black/white image inversion
- Filters for edge enhancement and noise reduction

#### Image documentation and archiving:

- Image transfer to the network
- Automatic, user-configurable data distribution (DICOM Send, see also DICOM system interfaces).
- Automatic filming with virtual film sheet (DICOM Print, see also DICOM system interfaces).
- Image data export (12 bit) to CD/DVD or export and import to USB device in DICOM or TIFF format. USB hard disk available as optional accessory

## Workflow

## Description

- Routine workflows are extensively automated.
- Prior to exposure the patient data is transferred via the patient management system (HIS/RIS: optional) or entered via the control console. The exposure parameters are preselected through the organ programs.
- The patient as well as the acquisition system is positioned and exposure is released. If the Aim or AimFAST option is selected the acquisition system position is also part of the organ program.
- Within a few seconds the image data is read out by the detector. The image is displayed at the control display for orientation and made available in DICOM format at the imaging system.
- Apply postprocessing steps if necessary
- Archive or print out image (paper printing to a Level 2 PostScript printer, Up to 3 network nodes at the same time and one laser camera configurable)
- Clinical Assurance Program (CAP): Provides statistics of rejected images.
- Exposure index (EXI) monitoring: Provides minimum and maximum EXI value for export
- Password protection: Access to system protected by password

### Option:

- Security Package: SW option with enhanced security features such as User Management and audit trail function (if offered, see text of the corresponding components).

### DICOM system interfaces

- DICOM Send: Sending of images into the DICOM network.  
The DICOM Send function enables fully automatic transfer of generated image data to a DICOM archive or a DICOM workstation. The user can perform his examinations without interruption while the system fully automatically transfers the images to the archive. This image data transfer takes place entirely in the background and thus does not affect exposures performed at the same time.
- DICOM Storage Commitment (StC): Feedback from the image archive.
- The DICOM StC function provides automatic notification on whether the generated image data were successfully transferred. This way the user can be sure that the exposures stored locally in the imaging system can be deleted.
- DICOM Print: Printing of images by means of a virtual filmsheet on a DICOM laser camera.  
Selecting "Auto-Print" automatically forwards the images stored on the virtual filmsheet to the laser camera. This optimizes the workflow, eliminating the need for user interaction. In addition, a specific layout can be configured for the virtual filmsheet, which the user can display and edit on the monitor at any time. This means that the layout can be optimized on the monitor prior to printing. This saves time and money.

### Options:

- DICOM Modality Worklist/MPPS (if offered, see tender further down).
- DICOM Query/Retrieve (if offered, see tender further down).

### Note concerning DICOM interface(s)

- For diagnostic purposes only hardcopy cameras/laser printer expressly approved for this system may be used.
- The description in the "DICOM Conformance Statement" downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).
- Functionalities across system borders with/between partner systems require explicit validation, since the interpretation of the interface by the partner/target system is not part of the product's responsibility.
- Any changes that may be required to the interface are not part of this quotation. This also applies, for example, in those rare cases when available configuration capabilities are insufficient. With regard to expenses for interface configurations that might be required, the agreements on maintenance/service of the product apply.

### syngo Remote Assist

- syngo Remote Assist is a standalone service option.
- With syngo Remote Assist, Siemens uses a secure broadband VPN connection (VPN = virtual private network) to establish a connection to your Siemens imaging console in order to offer you direct, real-time support and training. This seamless and simultaneous virtual interaction will contribute to improvements in image quality and optimization of system use.

## Description

### Smart Remote Services

- Prepared for optional Smart Remote Services SRS (during warranty period, subsequently with service contract)
- Hardware and software remote diagnosis
- System remote configuration, e.g. adding of a DICOM node
- Early warning system to secure system operation
- Functions according to the selected maintenance package
- Remote Update Handling
- TeamViewer

### Detector Bucky

The detector Bucky with single-handed operation includes an IONTOMAT three-field chamber for automatic exposure control (incl. three-field templates) and a device for symmetric positioning of the flat detector.

- Front plate - detector distance  $\leq 45$  mm
- Radiation absorption of the front plate  $\leq 0.5$  mm Al
- A stationary, exchangeable transparent grid for scattered radiation reduction; 13/92. Optionally for SID 115 cm and/or 180 cm, or universal grid with a field from 115 to 180 cm (see tender further down)

### Integrated MAX static 43 cm x 43 cm (17" x 17") flat detector

Integrated, fixed flat detector for digital image acquisition, CsI-scintillator, amorphous silicon (a-Si).

- Detector acquisition matrix: 2869 x 2874
- Pixel size: 148  $\mu$ m
- Acquisition depth (gray scales): 16 bit
- Acquisition formats: up to 42.5 cm x 42.5 cm

### Accessories

Scope of delivery:

- Lateral patient handles for optimum patient positioning, e.g. during PA thorax exposures
- Patient overhead handle, swiveling around the horizontal axis, for optimal patient positioning for lateral acquisitions

Height-adjustable patient positioning table with floating tabletop and detector tray with an integrated MAX static flat detector.

### Patient positioning table

- Free access to table and patient from all sides.
- Patient positioning tabletop 80 cm x 240 cm.
- Longitudinal movement of detector tray (from edge to edge)  $\geq 100$  cm.
- Longitudinal and transverse movement:  $\pm 48$  cm and  $\pm 14$  cm (maximum longitudinal coverage without patient repositioning is 190 cm)
- Height adjustment of the tabletop 44 cm: from 51.5 to 95.5 cm
- Radiation absorption  $\leq 0.65$  mm Al
- Tabletop – detector distance  $\leq 55$  mm for minimum magnification
- Max. patient weight 300 kg.
- IONTOMAT three-field chamber for automatic exposure control.
- Button on the detector tray for centering the tube on the detector.\*
- Auto tracking for longitudinal tube travel and tube rotation: detector follows tube movement or rotation; centering maintained

Highly selective transparent grid for scattered radiation reduction:

- Grid ratio 13:1, 92 lines/cm.
- Grid focusing for source-image distance (SID) of 115 cm.

## Description

- For pediatric radiography the grid can be removed from the beam projection.
- Auto tracking for longitudinal tube travel and tube rotation: detector follows tube movement or rotation; centering maintained
- Button on the detector tray for centering the tube on the detector.\*

\* Full function only available in combination with the Aim/ Aim FAST option

### MAX static detector

Integrated, fixed flat detector for digital image acquisition, CsI-scintillator, amorphous silicon (a-Si).

- Detector acquisition matrix 2869 x 2874
- Pixel size 148 µm
- Acquisition depth (gray scales) 16 bit.
- Acquisition formats up to 42.5 cm x 42.6 cm.

### Technical details:

- Cesium iodide (CsI) scintillator with Amorphous silicon (a-Si) material
- Detector acquisition matrix approx.: 2350 x 2866
- Pixel size: 148 µm
- Acquisition depth (gray scales): 16 bits
- Active area: 34.8 cm x 42.4 cm (13.7" x 16.7")
- Thickness: 19 mm
- Detector weight: 3.3 kg (with battery)
- Max. load 300 kg (patient lying down) and 100 kg (patient standing).
- MAX wi-D - 1 battery
- Data transfer via WLAN

### Operation time:

- Up to 1050 images
- Up to 6.5 h during regular utilization

### Technical details:

- Grid ratio 5:1, 85 lines/cm
- Grid focusing for source-image-distance (SID) of 115 cm (45")
- Dimensions (W x H x D): 472.1 mm x 410.1 mm x 28.4 mm (18.58" x 16.14" x 1.1")
- Weight: 1.05 kg (2.31 lbs)

### Technical details:

- Cesium iodide (CsI) scintillator with amorphous silicon (a-Si) material
- Detector acquisition matrix approx.
  - (Global system) 1520 x 1920
  - (China system only) 1538 x 1920
- Pixel size 148 µm
- Acquisition depth (gray scales) 16 bits
- Active area:
  - (Global system) 22.5 cm x 28.4 cm (8.9" x 11.2")
  - (China system only) 22.8 cm x 28.4 cm (9" x 11")
- Thickness 16 mm
- Data transfer via WLAN
- Operation time:

## Description

- Up to 1050 images
- Up to 6.5 h during regular utilization
- Detector weight 1.6 kg
- Max. load 300 kg (patient lying down) and 100 kg (patient standing)
- With MAX mini - 1 battery

### Technical details:

- Grid ratio 5:1, 85 lines/cm
- Grid focusing for source-image distance (SID) of 115 cm (45")
- Dimensions (W x H x D): 334 mm x 287.2 mm x 23.4 mm (13.15" x 11.3" x 0.91")
- Weight: 0.65 kg (1.43 lbs)

Space for 3 batteries, with LED battery charge level indicator. The charger is connected to a wall socket using a power cable.

### This item contains:

- 1 x Battery charger
- 1 x Power supply
- 1 x Battery

### Technical details:

- Grid ratio 13:1, 92 lines/cm
- Grid focusing for source-image distance (SID) of 140 cm (55")
- Universal grid: Working range between F115 cm and F180 cm (45" to 71")
- Dimensions without grip (W x H): 460 mm x 460 mm (18.11" x 18.11")
- Weight: 1.30 kg (2.86 lbs)

### Technical details:

- Grid ratio 15:1, 80 lines/cm
- Lead / glass fiber technology by Siemens
- Grid focusing for SID 300 cm
- Dimensions without grip (W x H): 460 mm x 460 mm (18.11" x 18.11")
- Weight: 1.47 kg (3.24 lbs)

### Technical specifications:

- Maximum speed of 0.6 m/s
- Storage of up to 1000 user-defined system positions using the organ programs.
- Service configurable objects in the room that can be detoured around during positioning.
- Power ceiling stand movement in X, Y and Z axes.
- Automatic tube centering function on the detector tray in the table and Bucky wall stand.
- Cable routing to the stand in energy chains, for free access to the patient.

### Performance data:

- 80 kW at 100 kV according to IEC 60601  
max. 1000 mA

### Provides:

- On/off tube tracking
- On/off light localizer

## Description

- Tube parking
- Tube centering
- Autopositioning of tube

Full function only available in combination with the Aim/ Aim FAST option.

Note: Standard for Aim FAST / Option for Aim

Provides:

- Autopositioning
- Raise/lower table
- Release longitudinal/transverse travel of tabletop
- Tube parking

Full function only available in combination with the Aim/ Aim FAST option

Note: Standard for Aim FAST / Option for Aim

Height adjustment, release, and locking of the floating tabletop is done through a foot kick switch. The foot kick rails are located in the foot area both at the front and the rear of the patient positioning table and can be programmed individually at the time of installation. This prevents accidental operation by patients or accompanying persons.

Intuitive wireless remote control with the SmartMove button for system positioning. Functionalities for the wireless remote control are intuitive and safe to operate:

- Dead-man switch for activation by human touch only
- Light indicator if dead-man switch is active
- Light indicator for active connection to system
- Light indicator for battery status
- Paging device to call remote control
- Tube movement in X, Y and Z axes
- SID tracking
- Table tracking
- Table movement up and down
- Bucky wall stand movement up and down
- Collimation
- Pre-programmed park position
- SmartMove button to move to organ program position

### **SW license for Ortho function**

#### For systems with bucky wall stand:

Ability to acquire up to 4 images of the legs or spine in sequence on the Bucky wall stand using a MAX wi-D, MAX static detector

#### Only for Ysio:

Ability to acquire up to 3 images at the patient table.

#### Only for Multitom Rax:

Ability to acquire up to 4 images of the legs or spine with RAX detector (patient in standing position or lying on the table)

### **Spine Composing**

Spine Composing takes individually acquired digital radiographic images of the spine and composes them into an overall image.

## Description

### The main functions are:

- automatic composing of digital radiographs into an overall image
- standard image post-processing functions are available

### **Ortho-Leg Composing**

Ortho-Leg Composing takes individually acquired digital radiographic images of the legs and composes them into an overall image.

### The main functions are:

- automatic composing of digital radiographs into an overall image
- standard image post-processing functions are available

The monitor has very high contrast, even with very bright ambient light. The gamma curve has been adapted precisely according to CIE/DICOM recommendations, and is therefore particularly suited to gray scale display.

### Technical specifications:

- Screen size 19" (48 cm)
- Resolution: 1280 x 1024 pixels
- Maximum brightness (typical): 280 cd/m<sup>2</sup>
- Flicker-free and distortion-free image display
- Anti-glare screen

The controlled backlighting offers stable lighting for the entire service life of the product.

### **DICOM MWL (Modality Worklist):**

Import of patient/examination data from an external RIS/HIS patient management system.

### **DICOM MPPS (Modality Performed Procedure Step):**

Sending of dose data, patient data, and examination data to an external RIS/HIS patient management system.

### **Note concerning DICOM interface(s)**

The description in the "DICOM Conformance Statement" downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).

Functionalities across system borders with/between partner systems require explicit validation, since the interpretation of the interface by the partner/target system is not part of the product's responsibility.

A modification of the interface that might be required is not included in the offer; e.g. for the rare case, that available configurations are not sufficient.

With regard to expenses for interface configurations that might be required, the agreements on maintenance/service of the product apply.

The CAREMAX plus dose-area product meter (DAP meter) is connected to the collimator via the CAREMAX adapter cable. The dose-area product (DAP) is displayed on the TUI of the system operating console and is recorded in the examination report.

### Technical details:

- Dimensions (H x W): 22 cm x 53 cm
- Weight: 5.3 kg

### Technical details:

- Dimensions: 24,7 cm x 7,4 cm x 0,7 cm
- Weight: 100 g
- Battery capacity: 3,35 Ah

## Description

- Max. voltage: 7,4V

The electronic tomographic device works without mechanical connection to a tomo-bar, with 6 programs and display of tomographic height at the remote control console.

Angle/time combinations:

- 40° in 1.2 s and 2 s
- 30° in 0.8 s
- 20° in 0.6 s
- 8° in 0.4 s and 0.8 s

Motor - driven tomographic height adjustment 10 mm to 250 mm in 2 mm increments.

The ClearRead Bone Suppression function works with the ClearRead Workstation. The Workstation has no user interfaces (only DICOM interface and internet connection). The chest image of the modality will be sent to the DICOM node of the Workstation. The Workstation starts a connection to the Riverain Database (Safe Data protocol with anonymized data) and will receive the suppressed image. The suppressed image together with the original image will be sent to the DICOM node of the PACS from the Workstation.

Technical specifications:

- Length: 198 cm
- Width: 66 cm (of which 53.5 cm is padded)
- Thickness: 2.5 cm
- Weight: 2.7 kg