

VAMC PITTSBURGH, PA  
PO# 646-B32019

TRADE IN - EE# 373881, SIEMENS  
AXIOM ARTIS DTC/DTA, ACQUIRED  
8/14/2009, ACQUIRED COST \$  
1,333,647.00

### Artis zee biplane - latest version

All items listed below are included for this system: (See Detailed Technical Specifications at end of Proposal.)

Qty	Item Description
1	<b>AX ELEVATE #R Buy Back (I.I. bi)</b> AX Elevate program for AXIOM Artis systems (biplane) with image intensifiers which will be replaced by a new Artis zee system.
1	<b>Neuro Radiology</b> X-ray angiography system with primary clinical use in neuroradiology, including application-specific accessories.
1	<b>Artis zee biplane</b> Biplane, floor-mounted and ceiling-mounted C-arm angiography system with high-resolution flat detectors. The motorized rotation of the floor stand into the lateral position enables complete patient access at the head end and generous patient coverage. The two powerful 100 kW generators and MEGALIX Cat Plus X-ray tube with its new flat emitter technology are the prerequisites for excellent image quality. The CLEAR functionality to optimize the image impression, the CARE package to reduce radiation exposure, and DICOM standards are all included. The system has been prepared for Siemens Remote Service.
1	<b>Sys SW incl DSA/DR (2)</b> Imaging system software including digital subtraction angiography and digital acquisition technology in 1k/12-bit matrix.
1	<b>High Speed / Card Acquisition</b> Fast acquisition module for DR and DSA as well as digital card acquisition technology with frame rates of 7.5, 10, 15 and 30 f/s, acquisition, display and storage in matrix 1k.
1	<b>Low-Dose Subtraction Mode</b> Low Dose Digital subtraction angiography with frame rates of 7.5, 10, 15 and 30 f/s (monoplane and biplane), acquisition, display and storage in matrix 1k². Preferably used for applications requiring low dose at higher frame rates e.g. in pediatrics.
1	<b>Radiology</b> Radiographic system for medical applications with emphasis on interventional radiology.

Qty	Item Description
1	<b>syngo interv. Neuro Engine Pro</b> This engine bundles the comprehensive functionality for neuroradiological interventions. The package contains a syngo X workplace and the software applications syngo InSpace 3D, syngo DynaCT, Inroom Control, syngo InSpace 3D Stenosis Measurement, syngo Neuro PBV IR, syngo Neuro Aneurysm Analyze and Virtual Stent, syngo iPilot (enhanced functionality), Angio Viewer (including syngo iFlow and Scene Compare).
1	<b>syngo Embolization Guidance</b> syngo Embolization Guidance is an application for planning and performing embolizations.
1	<b>syngo iGuide w/ InSpace 3D3D Fusion</b> syngo iGuide provides live and integrated needle guidance for interventional procedures such as vertebroplasties, kyphoplasties, biopsies, drainages or radiofrequency ablations. syngo iGuide takes advantage of the very good patient access on a C-arm-based angio system. This enables easy planning and monitoring of complex needle procedures requiring a double oblique needle path. syngo InSpace 3D/3D Fusion package for spatial alignment and visualization of image data of a patient where image data has been generated at different points in time by different modalities. Support of optimal diagnosis (fusion of morphological and functional information) and therapy planning.
1	<b>syngo iGuide Toolbox</b> syngo iGuide Toolbox contains the functions 'Linked Marker', 'Linked Pointer' and 'Linked Contours' that provide tools that take graphics drawn on the 3D volume and simultaneously display it on the live monitor. These graphical markers allow pretreatment planning on the syngo 3D workstation by marking spots or areas on the 3D volume. The graphics are linked in real time for display on the live image monitor.
1	<b>19in Color Flatscreen Display</b> LCD color flatscreen display with high luminance and extended field of view.
1	<b>syngo QVA Vascular Analysis</b> Vessel analysis with determination of degree of stenosis, distance measurement and calibration.
1	<b>syngo IZ3D - large vessel</b> QVA 3D reconstruction SW for calculating a 3D vascular model from at least two 2D projection images for vessel analysis with determination of degree of stenosis, distance measurement, and diameter.
1	<b>19in Color Flatscreen Display</b> LCD color flatscreen display with high luminance and extended field of view.
1	<b>syngo Dicom SR Viewer #X</b> syngo DICOM SR Viewer allows to display DICOM Structured Reports on a syngo Workplace.
1	<b>syngo Angio-Leg Composing SW-Lic.</b> Module for creating native full-format images of the peripheral vascular tree.
1	<b>syngo Security Package</b> SW option/extension for LEONARDO/syngo Workplace System, providing enhanced security features including user management and audit trail functionality.
1	<b>syngo keyboard, USA</b> Keyboard with special syngo keys.
1	<b>Customer documentation, English</b>
1	<b>VA kit for syngo XWP VB21</b> Second documentation set for deliveries to the Veterans' Affairs Administration Hospitals in the U.S.
1	<b>Image Memory Extension R640 XWP</b> Option to expand image memory by 300 GB.

1	<p><b>syngo Expert-i</b></p> <p>Expert-i enables the physician to interact with the syngo Workplace from virtually anywhere in the hospital.</p>
1	<p><b>DICOM Attribute Converter</b></p> <p>Individual solution via software-/XML-files, to solve compatibility problems.</p>
1	<p><b>Initial onsite training 32 hrs</b></p> <p>Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training 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.</p>
1	<p><b>Follow-up training 12 hrs</b></p> <p>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.</p>
1	<p><b>Additional onsite training 12 hours</b></p> <p>Up to (12) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist if applicable. 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.</p>
2	<p><b>GOVT Training Class (T &amp; L not included)</b></p> <p>Tuition for (1) government attendee to attend a classroom course of choice at one of the Siemens training centers. 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.</p>
1	<p><b>Offset Initial Training 32 hrs</b></p>
1	<p><b>3D / Dynavision</b></p> <p>Native or subtracted (with DSA option only) rotational angiography with angle and ECG triggering, generating the image data required for 3D reconstruction.</p>
1	<p><b>Detector 30x40 Crossh.(A) 30x40(B)</b></p> <p>Two high-resolution dynamic flat detectors for fully digital imaging chains, each with an integrated, removable grid and laser crosshairs as a positioning aid. Two MEGALIX Cat Plus 3-focus high-performance X-ray tube assemblies, rotatable angio collimators including CAREfilter, CAREwatch measuring chambers for recording the dose area product, and integrated collision protection.</p>
1	<p><b>Acquistion 2k</b></p> <p>The 2k option enables acquisition and storage of single images and series with a resolution of up to 4.76 Mega pixel (2,480 pixel x 1,920 pixel) at up to 7.5 f/s.</p>
1	<p><b>Table OR Version</b></p> <p>Floor-mounted swivelling patient table with telescopic foot, floating and tilttable tabletop (in two axes); motor-driven stepping for digital peripheral angiography. Table control module, power-assisted.</p>
1	<p><b>PERISTEPPING / PERIVISION</b></p> <p>Peripheral digital angiography with stepping and online subtraction display.</p>

Qty	Item Description
1	<b>table top (narrow) / mattress (thin)</b> Carbon fiber patient positioning tabletop narrow including special-foam mattress. Mattress including cover.
1	<b>Foot Switch Biplane (Wireless)</b> For release of fluoroscopy, exposure and table brake, roadmap selection and mask reset as well as a configurable additional function. Wireless connection via radio communication.
1	<b>Connection Kit - 2nd Foot Switch</b> Connection kit for connecting a second tableside foot switch.
1	<b>Foot Switch Biplane (Cable)</b> For release of fluoroscopy, exposure and table brake, roadmap selection and mask reset as well as a configurable additional function. Cable connection.
1	<b>Ceiling Rail Extension (2)</b> Rails for extending the longitudinal travel range of the display suspensions system by 1.2 m.
1	<b>DCS8ext DVI 4xBWD-19D(2xL+2xR+4xF)</b> Display suspension system for eight flat displays with four 19" monochrome flat displays with blue background color. Prepared for four additional displays.
1	<b>Roadmap Plus DCS DVI (Biplane)</b> Two additional 19" monochrome flat displays for enhanced Roadmap functionality and dual reference function.
2	<b>19" color display with video cable</b> One additional 19" color display including 36 m cable with DVI-D connection for installation in display ceiling suspension (DCS). LCD color display with high luminance and extended field of view.
1	<b>Video splitter</b> This connection kit is needed to display a DVI-D video signal from a unit, for example the syngo X-Workplace, on a single display or on a large display in the display suspension system (DCS) in the examination room, and all DVI-D connections on the unit are already assigned. Note the following conditions if image content from third-party provider video signals are to be displayed on the Artis displays: - The display of external video signals depends on the operational state of the Artis system. If the Artis system has a malfunction or is shut down, the display of external video signals is not available. For this reason, do not feed the video signal into the Artis system if lacking the external video signal could result in a hazardous situation. - A third-party provider's unit may be connected only if it corresponds to the specifications of the video interface (e.g., at the MDM). - The connection may only be established by a Siemens service technician. Note: The connection must be made with fiber-optic cables to ensure that the unit's galvanic isolation is maintained. The fiber-optic cables must be ordered separately. - A third-party provider's unit must be connected by a technician from the third-party provider or by a hospital technician responsible for the equipment. - It is strongly recommended that a test of image quality be performed by the third-party provider prior to start-up. This test ensures that the required image quality is achieved. - The system configurator is responsible for ensuring that applicable standards are maintained in the current version, e.g. 4 kV insulation Siemens will not be held liable for the inclusion of third-party provider units with respect to image quality and their suitability for clinical diagnosis.

**Qty****Item Description**

1

**4x1 video signal distributor**

With this item you can show one video signal each from up to 4 units (such as a cardiac catheter recording system, workstation, ultrasound unit, PACS, etc.) on up to two displays (not a large display) in the display suspension system (DCS) in the examination room. The following conditions must be met: if image content from third-party provider video signals is to be shown on Artis displays: - The display of external video signals depends on the operational state of the Artis system. If the Artis system has a malfunction or is shut down, the display of external video signals is not available. For this reason, do not feed the video signal into the Artis system if lacking the external video signal could result in a hazardous situation. - A third-party provider's unit may be connected only if it corresponds to the specifications of the video interface (e.g., at the MDM). - The connection may only be established by a Siemens service technician. Note: The connection must be made with fiber-optic cables to ensure that the unit's galvanic isolation is maintained. The fiber-optic cables must be ordered separately. - A third-party provider's unit must be connected by a technician from the third-party provider or by a hospital technician responsible for the equipment. - It is strongly recommended that a test of image quality be performed by the third-party provider prior to start-up. This test ensures that the required image quality is achieved. - The person placing on the market is responsible for ensuring that applicable standards are maintained in the current version, e.g. 4 kV insulation. Siemens will not be held liable for the inclusion of third-party provider units with respect to image quality and their suitability for clinical diagnosis.

3

**Analog/digital video converter**

This connection kit is needed to convert the analog video signal of a unit, such as an ultrasound system, to a DVI-D video signal. Note the following conditions if image content from third-party provider video signals are to be displayed on the Artis displays: - The display of external video signals depends on the operational state of the Artis system. If the Artis system has a malfunction or is shut down, the display of external video signals is not available. For this reason, do not feed the video signal into the Artis system if lacking the external video signal could result in a hazardous situation. - A third-party provider's unit may be connected only if it corresponds to the specifications of the video interface (e.g., at the MDM). - The connection may only be established by a Siemens service technician. Note: The connection must be made with fiber-optic cables to ensure that the unit's galvanic isolation is maintained. The fiber-optic cables must be ordered separately. - A third-party provider's unit must be connected by a technician from the third-party provider or by a hospital technician responsible for the equipment. - It is strongly recommended that a test of image quality be performed by the third-party provider prior to start-up. This test ensures that the required image quality is achieved. - The person placing on the market is responsible for ensuring that applicable standards are maintained in the current version, e.g. 4 kV insulation. Siemens will not be held liable for the inclusion of third-party provider units with respect to image quality and their suitability for clinical diagnosis.

3

**Digital video cabling**

This connection kit is needed to display the video signal from a unit, for example a computer, on a single display or on a large display in the display suspension system (DCS) in the examination room. It connects a DVI-D video output of a unit to a DVI-D video input of the Siemens video signal distributor. Using fiber-optic cables ensures the galvanic isolation of the video source. Note the following conditions if image content from third-party provider video signals are to be displayed on the Artis displays: - The display of external video signals depends on the operational state of the Artis system. If the Artis system has a malfunction or is shut down, the display of external video signals is not available. For this reason, do not feed the video signal into the Artis system if lacking the external video signal could result in a hazardous situation. - A third-party provider's unit may be connected only if it corresponds to the specifications of the video interface (e.g., at the MDM). - The connection may only be established by a Siemens service technician. Note: The connection must be made with fiber-optic cables to ensure the galvanic isolation. - A third-party provider's unit must be connected by a technician from the third-party provider or by a hospital technician responsible for the equipment. - It is strongly recommended that a test of image quality be performed by the third-party provider prior to start-up. This test ensures that the required image quality is achieved. - The system configurator is responsible for ensuring that applicable standards are maintained in the current version, e.g. 4 kV insulation. Siemens will not be held liable for the inclusion of third-party provider units with respect to image quality and their suitability for clinical diagnosis.

Qty	Item Description
1	<b>MMV - XWP/MMWP joystick/mouse</b> Additional, dedicated joystick in the examination room for precise and fast control of a syngo Workplace parallel to mouse operation in the control room.
1	<b>LD input VGA ext. (ultrasound)</b> Analog input for an analog VGA video signal, e.g. from the ultrasound.
1	<b>ACE Cable Set in Equip. Room (2) A</b> Image system interface to the displays in the control room if the image system is installed in the equipment room.
1	<b>C-Room DVI 4xBWD-19C (2xL+2xR) -36m</b> Four monochrome 19" flat-screen displays with blue background color.
1	<b>Memory Ext. 4 (100k-1k Matrix)bi</b> Memory capacity extension to 100,000 images in 1k matrix.
1	<b>Vessel analysis</b> Vessel analysis with determination of degree of stenosis, distance measurement and calibration.
1	<b>Fluoro Loop (2)</b> Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. The maximum storable fluoroscopic time depends on the selected pulse rate, e.g. 34 s at 30 p/s, 68 s at 15 p/s (VC21 software required). Note: With VC14 software, the values are 17 s at 30 p/s, 34 s at 15 p/s.
1	<b>Automap</b> Automatic stand positioning depending on the selected reference image and automatic reference image selection depending on the stand positioning.
1	<b>MULTISPACE.F</b> Manual stand rotation for additional work positions.
1	<b>DICOM HIS / RIS</b> Import of patient/examination data from an external RIS/HIS patient management system with DICOM MWL (Modality Worklist).
1	<b>DICOM MPPS</b> Feedback of examination status via DICOM MPPS (Modality Performed Procedure Step) to an external RIS/HIS patient management system. Data such as the dose-area product can be transferred to the RIS.
1	<b>DICOM Print</b> Provision of DICOM Print service for connection to a laser camera or a network printer (postscript).
1	<b>Syngo security package (SW lic.)</b> SW-Option/Extension for AXIOM Artis, providing enhanced security features including user management and audit trail functionality.
1	<b>HIPAA Admin Training</b> The Siemens 4-day-workshop (course ID: CN6SECADMIN) gives detailed information on concept and configuration of security-relevant operating states of Siemens products, as well as an overview on HIPAA requirements.
1	<b>LB rad. protection w/ pivot arm</b> For shielding the lower body against scattered radiation within the examiner's moving range. Specially designed for avoiding collisions with the tube during oblique projections, therefore especially suited for cardiology.

Qty	Item Description
1	<b>Upper Body Rad. Protection Artis-F</b> To protect the upper body against scattered radiation within the operating range of the examiner, e.g. during interventional procedures.
1	<b>Examination lamp, 115 V</b> Ceiling-mounted OR lamp (examination light class), flexibly adjustable towards the user, for diagnostics and minor surgery. Examination light Mach 130F with focusable dielectric light system. - Luminance: 35,000 Lux (3,255 fc) for 100 cm distance - Working distance: 70 to 140 cm - Color rendering index Ra (gen.): 96 - Color temperature: 4,300 Kelvin - Focusable spot size: 14 to 25 cm - Light body diameter: 22 cm - Halogen lamp: 22.8 V/50 W Examination light power connection 115 V Only in connection with upper body radiation protection 144 07 034 or 144 07 035. For direct connection with 115 V line voltage only. Max. arm length: 185 cm. Weight: 14 kg *2 May only be delivered in the USA with the local material no. or sales no. in the US price book
1	<b>Interface for C-Room Operation(MA)</b> Interface for connecting the optional system control from the control room.
1	<b>Control room emerg. stop module</b> Safety button for switching off all system functions from the control room.
1	<b>Hand switch manual</b> Additional hand switch for radiation release and additional control functions.
1	<b>Control Room Injector Interface</b> Interface for controlling the contrast medium injector from the control room.
1	<b>syngo Keyboard, English - US</b> Keyboard with special syngo keys.
1	<b>Injector Wall Connection</b> Wall interface for connection of the contrast medium injector in the examination room, remote from the patient table.
1	<b>VA kit Artis zee systems</b> Second set of documentation for deliveries to the Veterans' Affairs Administration Hospitals in the U.S.
1	<b>Tabletop,narrow</b> Narrow-shaped carbon-fiber patient tabletop with head-end recess, e.g., for cardiological applications. Tabletop tapered in the thorax area for maximum freedom of C-arm angulation. Including set of body straps with three Velcro straps for securing and compressing the patient.
1	<b>Thin mattress for narrow table</b> Matching, special-foam mattress, 4 cm, made of open-pore polyurethane material. Mattress including cover.
1	<b>Head support with set of pads</b> Head holder for head immobilization during neuroradiological examinations.
1	<b>Supply Line #Headside Control</b> 4.5 m cable for connecting the control modules located at the head end.
1	<b>Head module</b> Table insert with attached accessory rails for mounting control modules at the head-end of the patient positioning tabletop.
1	<b>Body module, narrow</b> Table insert with attached accessory rails for mounting control modules in the 'abdominal' part of the patient positioning tabletop.

Qty	Item Description
1	<b>Body module</b> Table insert with attached accessory rails for mounting control modules in the 'abdominal' part of the patient positioning tabletop.
1	<b>Head Side Support</b> The head end holder can be attached at the head end of ARTIS tabletops (narrow = card). This is a special accessory rail holder enabling incorporation of the head supports, shoulder supports and articulated arm supports, and the anesthetic curtain.
1	<b>Connector Panel</b> Connector panel for installation in the Artis table base for plug connection of country-specific type (USA/Canada).
1	<b>Armholder (pair)</b> Two arm holders for comfortable lateral arm positioning along the patient's body.
1	<b>Kyphoplasty arm rest "UNI"</b> Arm rest for patient positioning in prone position.
1	<b>Kyphoplasty arm rest "CARD"</b> Arm rest for patient positioning in prone position.
1	<b>Head Holder (prone pos., adults)</b> Gel pad for positioning the heads of adults in prone position.
1	<b>Body Belt Protection</b> The body belt protection set consists of two belts with Velcro strap. They are used for general fixation and compression and are laid around patient and tabletop.
1	<b>Customer documentation, English</b>
1	<b>PreIns. mon.trol./DCSext/Displ.Boom</b>
1	<b>Pre-install Artis table, std</b>
1	<b>Initial onsite training 32 hrs</b> Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training 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.
1	<b>Follow-up training 32 hrs</b> Up to (32) 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.
1	<b>Follow-up training 12 hrs</b> 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.



Qty	Item Description
1	<p><b>Additional onsite training 32 hours</b></p> <p>Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist if applicable. 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.</p>
2	<p><b>GOVT Training Class (T &amp; L not included)</b></p> <p>Tuition for (1) government attendee to attend a classroom course of choice at one of the Siemens training centers. 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.</p>
1	<p><b>Offset Initial Training 32 hrs</b></p>
1	<p><b>Mark 7 Arterion, Table Mount Injector</b></p> <p>The Arterion Mark 7 Table contrast medium injector allows for the remote installation of the system power supply and installation of the injector head onto a table bracket. The injector system includes: Power supply and injector head with corresponding cabling An adjustable height table bracket for the injector head A desk mounted user control console with large touch screen Functions Pressure limitation: for 150 ml syringes 689 to 8273 kPa, corresponds to 100 to 1200 psi. . Flow rates for 150 ml syringes: 0.1 to 45 ml/s in increments of 0.1 ml/s 0.1 to 59.9 ml/min in increments of 0.1 ml/min rise/fall: 0 to 9.9 s in increments of 0.1 seconds Release delay for injection or radiation: 0 to 99.9 s in increments of 0.1 s. Adjustable volume for 150 ml syringes: 1 ml to the max. syringe capacity in increments of 1 ml. Fill rate: Variable syringe filling speed 1-20ml/s. Injection protocols: Up to 40 injection protocols possible. Parameters currently displayed on the touch screen display and on the head display: Injection speed Injection volume Remaining volume Injection duration Applied pressure Contrast medium heating: Nominal 35°C (95°F)+-5°C (9°F) Injection data memory Up to 50 injection data items stored Included in the scope of delivery Injector standard configuration 150 ml SIEMENS interface cable Operator Manual Service manual (English). Power supply 200 V to 250 V; 50/60 Hz.</p>
1	<p><b>PEDESTAL FOR INJECTOR HEAD,MARK V PROVIS</b></p>
1	<p><b>Elevate Promo Artis to zee Biplane</b></p> <p>Existing System must be de-installed by December 31, 2013.</p>
1	<p><b>AXA BTL Deinstallation</b></p>
2	<p><b>Blue anti-fatigue floor mat for hospital</b></p>
1	<p><b>PERI BOLUS KIT</b></p>
1	<p><b>Horizon SF (2 DICOM connections)</b></p>
1	<p><b>Standard Rigging zee BP</b></p>
1	<p><b>Additional Rigging/Out of Scope Inbound</b></p>
1	<p><b>Additional Rigging/Out of Scope Outbound</b></p> <p>One complimentary biomedical tuition is included with the purchase of this system. This training must be completed before the end of the warranty period.</p>
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## Detailed Technical Specifications

### Artis zee biplane - latest version

. / Product	Description
<b>AX ELEVATE #R Buy Back (I.I. bi)</b>	<p>AX Elevate is the „managed system upgrade program“ of Siemens, which supports you replacing your existing system to a new system and which therefore enables you to benefit of modern technologies and functionalities. The old system will be bought back by Siemens.</p> <p>AX Elevate is part of our comprehensive customer care program, Life.</p>
<b>Neuro Radiology</b>	<p>The accessories include the following components:</p> <ul style="list-style-type: none"> <li>- Arm cradles (pair)</li> <li>- Catheter tray, foot end</li> <li>- Head support with set of pads</li> <li>- Head holder, flat</li> <li>- Head holder, deep</li> <li>- Instrument tray</li> </ul>
<b>Artis zee biplane</b>	<p><b>System Configuration</b></p> <p>The biplane angiography system for digital acquisition is designed to meet the requirements of modern angiography and interventional procedures.</p> <p>C-arm floor-mounted stand:</p> <ul style="list-style-type: none"> <li>- Two work and one park position.</li> <li>- Up to 5 programmed work positions and additional 50 user-defined work positions.</li> <li>- One single joystick for patient angle oriented operation of C-arm and image receptor movements.</li> <li>- Synchronous movement of both planes maintaining the relative angle.</li> <li>- Integrated, computer-aided collision monitoring ICP (Intelligent Collision Protection).</li> <li>- C-arm positioning 0° to the head end and 35° to the left side of the patient longitudinal axis.</li> <li>- Double oblique projections of ±130°, LAO/RAO and +55°/-45° cran/caud; cranial max. 52° with isocenter 12 cm above patient tabletop.</li> <li>- Variable C-arm speeds up to 25°/s.</li> <li>- Variable source-to-detector distance between 90 cm and 120 cm.</li> <li>- Isocenter-floor distance 106 cm.</li> <li>- Focus-isocenter distance 75 cm.</li> </ul> <p>C-arm ceiling-mounted stand:</p> <p>Ceiling-mounted, slim C-arm for hemiaxial oblique projection in simultaneous biplane operation.</p> <ul style="list-style-type: none"> <li>- Two work and one park position.</li> <li>- Up to 5 programmed work positions and additional 50 user-defined work positions.</li> <li>- One single joystick for patient angle oriented operation of C-arm and image receptor movements.</li> <li>- Synchronous movement of both planes maintaining the relative angle.</li> <li>- Integrated, computer-aided collision monitoring ICP (Intelligent Collision Protection).</li> <li>- Motorized longitudinal travel of the C-arm, variable up to 15 cm/s, from the thorax region to the park position outside the examination range.</li> <li>- Double oblique projections from 0° to 120° LAO and +55°/-45° cran/caud.</li> <li>- Variable C-arm speeds up to 10°/s.</li> <li>- Variable source-to-detector distance between 94 cm and 124 cm.</li> <li>- Isocenter-floor distance 106 cm.</li> <li>- Focus-isocenter distance 75 cm.</li> </ul>

/ Product	Description
Artis zee biplane	<p><b>Operation</b>  An ideal workflow requires full user operation capabilities for the system including imaging system and generator under sterile conditions in the examination room. The user should be able to operate the system by himself without needing to leave the examination room as necessary. The intuitive <i>syngo</i> operating elements allow for managing the whole process from preparation of the patient to image post processing in a safe, reliable, and time efficient way.</p> <p>In the examination room:  Complete system operation through modular control elements directly at the patient table for controlling C-arm movements, patient table and multileaf collimator. Touchscreen with multi-functional joystick for operation of the imaging system, including post-processing and quantification as well as selection of the organ programs. It is based on <i>syngo</i> operation. The touchscreen is specifically configurable to individual clinical requirements. Data regarding system and table geometry, dose data with CAREwatch, as well as system messages, are shown in the live display</p> <p>In the control room:  Standard Siemens <i>syngo</i> control via keyboard and mouse for all imaging system functions such as image post-processing, archiving, configuration of organ programs, and patient administration.</p> <p><b>Display of system data</b>  Data regarding system and table geometry, dose data with CAREwatch, as well as system messages, are shown integrated on the display in the examination room.</p> <p><b>imaging system</b>  High-resolution digital imaging system with CLEAR technology, DICOM network connection and <i>syngo</i> user interface.</p> <p>In order to provide highest level system availability, the imaging system consists of two independent computer systems that manage central tasks such as real-time image processing during fluoroscopy or acquisition as well as post-processing and networking functionality separately from one another. This ensures the system performance will always meet the highest possible demands.</p> <p><b>Image storage capacity</b>  50,000 images in 1k/12-bit image matrix (extendable).</p> <p><b>Operating modes</b></p> <ul style="list-style-type: none"> <li>- Digital pulsed fluoroscopy with pulse frequencies of 7.5 f/s, 10 f/s, 15 f/s, and 30 f/s (monoplane and biplane) in 1k/12-bit matrix.</li> <li>- Overlay fade: On-line overlay of active fluoroscopy and reference image.</li> </ul> <p><b>CARE package</b>  Siemens follows the ALARA principle: "As Low as Reasonably Achievable"; the CARE package (Combined Applications to Reduce Exposure) was developed based on this research and development principle to protect the examiner and the patient.</p> <p>Dose saving</p> <ul style="list-style-type: none"> <li>- CAREvision: Pulsed fluoroscopy with additional, reduced pulse rates of 7.5 p/s to 0.5 p/s. Adaptation of pulse rate to the current application requirements for significant reduction of radiation exposure, especially during interventional procedures.</li> <li>- CAREprofile: Radiation-free positioning of the primary and semi-transparent diaphragms by means of graphic display in the LIH (Last Image Hold). Collimator shutters and semi-transparent filters can be adjusted as a graphical overlay on the last-image-hold without any need for fluoroscopy.</li> <li>- CAREposition: Object repositioning without radiation through graphic display of the X-ray central beam and the image edges in the LIH (Last Image Hold). CAREposition enables the repositioning of an object under visual control without radiation. In case of table movements the current position of the central beam and the image edges are superimposed on the LIH image as orientation points.</li> <li>- CAREfilter is intelligent control software that helps minimize X-ray dose without negative impact on image quality. During fluoroscopy and acquisition special copper prefilters are inserted into the X-ray beam depending on current X-ray transparency calculated by CAREMATIC. The five-step adaptive Cu prefiltration is used to reduce the equivalent dose of the skin and improve radiation quality through dose saving of low-</li> </ul>

/ Product	Description
<p><i>(Continued)</i></p> <p><b>Artis zee biplane</b></p>	<p>energy X-ray radiation: Filter steps: 0.1; 0.2; 0.3; 0.6; 0.9 mm Cu. Selection is automatic depending on absorption. This is necessary to ensure that the optimal prefilter value is always active. This automation makes work easier for the user because the given optimal filter setting need not be adjusted manually.</p> <ul style="list-style-type: none"> <li>- CAREwatch: Display of the measured dose-area product and the calculated patient air kerma reference on the flat screen display. Electronics unit with DIAMENTOR measurement chamber integrated in the collimator housing for dose acquisition. Configurable screens on the data display and imaging system monitor: During fluoroscopy: Air kerma reference rate. During fluoroscopy interval: Accumulated air kerma reference or dose-area product or percentage of dose limit value (sum of fluoroscopy and acquisition).</li> <li>- Low dose acquisition: enables dose savings of up to 60 % during the examination. The low dose acquisition protocol can be released directly with the footswitch.</li> </ul> <p>Dose monitoring</p> <ul style="list-style-type: none"> <li>- CAREguard: offers the possibility of establishing three limit values for the air kerma reference. If the accumulated air kerma reference exceeds the configured limit value, a warning appears on the live display and tableside on the touchscreen control. This provides ideal air kerma reference monitoring during the examination.</li> <li>- CAREmonitor supports the physician by enabling dose-efficient examinations, thereby significantly reducing the risk of skin burns. It includes special monitoring of the skin entry dose, taking into account the geometric conditions of the system (device angulation, table position). This ensures that the skin entry dose applied to a specific region of the patient's body will not exceed a specified threshold, thereby better protecting the patient from the harmful effects of X-radiation. The critical equivalent skin dose to avoid X-ray-related skin injury is at about 2 Gy. CAREmonitor consistently calculates and displays the actual accumulated skin entry dose. This helps the user to detect a potential patient hazard quickly and with certainty.</li> </ul> <p>Dose reporting</p> <ul style="list-style-type: none"> <li>- CAREreport: part of the DICOM Structured Report; displays the dose information in DICOM format after every examination. This creates an integrated DICOM data set consisting of images and dose information, which can be sent together to a DICOM archive. The display of dose information in DICOM format permits the flexible analysis and further processing via a DICOM-capable analysis software/database.</li> </ul> <p><b>CLEAR package</b> The CLEAR package enables optimized image quality through real-time processing of the image data without increasing the radiation dose.</p> <ul style="list-style-type: none"> <li>- CLEARcontrol: The new histogram analysis provides a more homogeneous image impression by harmonizing over- and underexposed areas of the image. This is done fully automatically, thus eliminating any further manual user corrections through windowing.</li> <li>- CLEARview: Dose-dependent filtering of the image data efficiently suppresses image noise, enabling clear, sharp images, even for low-dose acquisitions.</li> <li>- CLEARvessel: Every pixel is analyzed in real time, and vessel edges are shown in high contrast without adding noise to the image.</li> <li>- CLEARmotion: Fine moving structures, such as small vessels and guidewires, are detected in the image and motion artifacts are suppressed efficiently. The visibility of small moving vessels and guidewires is improved significantly during fluoroscopy.</li> </ul> <p>In addition there is Dynamic Density Optimization (DDO) for on-line harmonization of native series and single images.</p> <p><b>Image processing</b></p> <ul style="list-style-type: none"> <li>- Positive/negative image display, windowing, contrast/brightness, electronic display (shutter), image shift (roaming), vertical and horizontal image inversion, magnifying glass, and zoom functions.</li> <li>- Storing of single images as reference images also during fluoroscopy.</li> <li>- Quantification: angle/length measurement, selection of automatic and/or manual calibration.</li> <li>- Text functions: user-definable image annotation, free annotation or by means of text components, comments line for the image, R/L display.</li> <li>- Fast and direct access to all series, single images, and photo file via MULTIMAP both in the examination and in the control room.</li> </ul> <p>Possibility to name a scene in the image text before radiation is released</p>

/ Product	Description
Artis zee biplane	<p><b>DVD / CD burner (DICOM)</b> DVD drive for automatic digital image storage in the background on DVD-/CD-ROM for off-line data exchange in DICOM format.</p> <p><b>Networking</b> Network interface (1000 BaseT) with the following integrated DICOM services:</p> <ul style="list-style-type: none"> <li>- 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 is fully automatically transferring the images to the archive scene by scene. This is a background process, and thus does not interfere with the ongoing fluoroscopy or acquisition.</li> <li>- DICOM Storage Commitment (StC): Feedback from the image archive. The DICOM StC function automatically gives feedback on whether the generated image data were successfully transferred. This provides the necessary certainty to the user before deleting the acquired images locally in the imaging system.</li> <li>- DICOM-Query/Retrieve: Retrieval of archived images from a digital archive or from a workstation: Already archived image data from a previous examination can be fully retrieved and is then available for review and processing. The user can request CT or MR system images from the archive and display the data as a reference image in the examination room. There is no need for a separate workstation.</li> <li>- DICOM Structured Report: All the quantification results obtained on the system as well as all dose information on the individual radiation releases can be saved in DICOM SR (Enhanced SR) format and transferred to a DICOM network.</li> </ul> <p><b>Note concerning DICOM interface(s)</b> The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>Functionalities across interfaces 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.</p> <p>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.</p> <p><b>X-ray generators</b> Microprocessor-controlled high-frequency X-ray generators with automatic dose rate control for angiography.</p> <ul style="list-style-type: none"> <li>- 100 kW at 100 kV (DIN 6822), nominal power max. 80 kW (100 kV, 800 mA, 0.1 s) with Megalix tube and the newest flat emitter technology.</li> <li>- SID tracking (automatic tube current adaptation to source-to-image receptor distance).</li> <li>- CAREMATIC automatic X-ray control system for fully automatic calculation and optimization of exposure data based on fluoroscopic data.</li> <li>- Patient transparency monitoring.</li> <li>- Tube load monitoring.</li> </ul> <p>The optimal X-ray parameters depend on the transparency of the patient at the current angulation, measured during fluoroscopy. These parameters are continuously calculated and updated. Test shots are no longer required. This achieves high image quality and minimum radiation exposure for physician and patient with every exposure release.</p> <p><b>Accessories included in the scope of delivery</b></p> <ul style="list-style-type: none"> <li>- Unilateral armrest</li> <li>- Infusion bottle holder</li> <li>- Additional hand switch for radiation release and additional control functions.</li> </ul> <p><b>Siemens Remote Service</b> Prepared for Siemens Remote Service SRS™ (during warranty, then with service contract):</p> <ul style="list-style-type: none"> <li>- Hardware and software remote diagnosis.</li> <li>- System remote configuration, e.g. adding of a DICOM node.</li> </ul>

/ Product	Description
<p><i>(Continued)</i></p> <p><b>Artis zee biplane</b></p>	<ul style="list-style-type: none"> <li>- Early warning system ensuring system operation.</li> </ul> <p><b>syngo Evolve for Artis zee</b>  syngo Evolve is a service feature that is offered as a separate sales option for all systems of the Artis zee family. It is a key component of our upgrade strategy and allows the customer to take advantage of technological advancements.</p> <p><b>Customer Care. Life - the customer care solution by Siemens Healthcare</b>  From the moment you purchase your Siemens system you will benefit from many services that are offered by "Customer Care. Life", e.g.:</p> <ul style="list-style-type: none"> <li>- initial application training,</li> <li>- interactive e-learning for various applications,</li> <li>- free customer magazines,</li> <li>- arrangements for clinical training via a global network,</li> <li>- and free trial licenses</li> </ul> <p>You will find detailed information on our e-learning program and further details on general "Customer Care. Life" services on the internet.</p> <p>* "Customer Care. Life" offerings are not necessarily available to the full extent for all systems.</p>
<p><b>Sys SW incl DSA/DR (2)</b></p>	<p>The 1k image matrix with a bit depth of 12 bits allows an excellent image contrast by using 4,096 shades of grey. Thus, the image quality meets highest expectations in angiography and fulfills all prerequisites for precise diagnostics and safe interventions.</p> <p>Imaging system software including digital subtraction angiography (DSA) and digital acquisition technique. Single image and serial acquisitions with time-controlled and manually variable frame rate.</p> <p><b>DSA</b></p> <ul style="list-style-type: none"> <li>- with frame rates of 0.5 to 7.5 f/s,</li> <li>- including pixel shift, remask, roadmap, peak opacification for iodine contrast (MaxOpac) and CO<sub>2</sub> contrast (MinOpac);</li> <li>- adding of the anatomical background (landmark) from 0 to 100%;</li> <li>- acquisition, display and storage in 1k matrix.</li> </ul> <p><b>Digital radiography (DR)</b></p> <ul style="list-style-type: none"> <li>- 1k/12-bit matrix and digital real-time filtration, single image and serial acquisition at frame rates of 0.5 f/s to 7.5 f/s with time-controlled and manually variable frame rate.</li> <li>- Digital pulsed fluoroscopy with pulse frequencies of 7.5 f/s, 10 f/s, 15 f/s, and 30 f/s in 1k/12-bit matrix.</li> <li>- Overlay fade: On-line overlay of active fluoroscopy and reference image.</li> </ul> <p>Unexpected patient movements in DSA acquisitions will deteriorate image quality. Although this can be corrected via manual pixel shift, it is still inconvenient and time consuming for the user. Auto Pixelshift solves this challenge easily maintaining optimal image alignment.</p> <p>With software version VC21 and higher, the following additional functions are available with Roadmap:</p> <ul style="list-style-type: none"> <li>- DSA image can be selected as a mask for Roadmap</li> <li>- Zoom can be changed during Roadmap</li> <li>- Catheter and vascular contrast can be adapted separately</li> </ul>
<p><b>syngo interv. Neuro Engine Pro</b></p>	<p>Contents:</p> <ul style="list-style-type: none"> <li>- syngo X Workplace with InSpace 3D Flash RT (including syngo iIdentify):</li> </ul> <p>The functionality of the syngo X Workplace can be extended with additional software functions to suit specific user or clinical needs in angiography, surgery, and cardiology. The use of the licensed software is limited exclusively to the specific syngo X Workplace included with this configuration.</p> <p>The base viewing system can be extended by adding a wide range of application options.</p>

/ Product	Description
<p><i>(Continue</i></p> <p><b>syngo interv. Neuro Engine Pro</b></p>	<p><b>syngo X Workplace PC</b>  High-performance workstation based on Windows XP Professional with upgraded 6/12 GB RAM and hard drive with 147 GB/300 GB for image data. The workstation is equipped with an Open GL accelerator board to support 3D applications. To exchange medical images on DICOM-compatible CD-Rs and DVDs, the system is equipped with a CD/DVD burner.</p> <p>syngo X Workplace can be connected to an existing network via Gigabit/100 Mbit Ethernet.</p> <p><b>syngo X Workplace Basic User Software</b>  The syngo X Workplace software features an intuitive and thus easy to learn user interface developed from prototypes tested in close cooperation with users.</p> <p>Standard functions such as filming or image review, and optional clinical application software, are performed in individual processes on dedicated task cards. A number of functions and input parameters, as well as the language used, can be selected according to individual requirements.</p> <p><b>Package comprising the following software licenses</b>  Basic software with CD and dongle for the following functions:</p> <ul style="list-style-type: none"> <li>- Patient Browser</li> <li>- Filming</li> <li>- Viewer</li> <li>- System services</li> </ul> <p>Patient Browser:</p> <ul style="list-style-type: none"> <li>- Patient management.</li> <li>- DICOM communication with Send, Receive, Query/Retrieve, Print.</li> <li>- Reading of CDs/DVDs.</li> <li>- Module for writing DICOM CDs/DVDs for data exchange. Writing is in background mode.</li> </ul> <p>Filming:  A virtual filmsheet shows a 1:1 display of the film sheets to be printed. This permits an effective preview of the filming job and the windowing of images, as well as providing a large number of evaluation functions.</p> <p>Image Review:  Image Review supports interactive 2D review, evaluation and documentation functions. Multiple studies from the same patient can be displayed side-by-side for comparison.</p> <ul style="list-style-type: none"> <li>- Image display: 1.024<sup>2</sup> screen matrix, configurable with up to 64 image segments.</li> <li>- CINE display: Automatic or interactive dynamic presentation technique for the visualization of time and volume series.</li> <li>- Synchronized viewing of multiple series.</li> <li>- Measurement and annotation: Text annotation; distance, angle, circle, ROI and pixel lens, depending on information available from the acquisition system.</li> </ul> <p>System services:  Microsoft Office 2003 Word, Excel, PowerPoint plus Outlook are supported (not provided!).</p> <ul style="list-style-type: none"> <li>- Any user-selectable file, such as cardiac, DSA or InSpace AVI video sequences, can be burned to CD to prepare quality presentations and demos of pathologies.</li> <li>- Network module: For connection to a local Ethernet (Gigabit or 100 Mbit) for communication with networked archives, printers, diagnostic and therapy workstations, and teleradiology routers.</li> </ul> <p>Scope of functions</p> <ul style="list-style-type: none"> <li>- Network stations can be configured.</li> <li>- Unlimited selection of stations.</li> </ul> <p><b>syngo InSpace 3D Flash RT</b>  syngo InSpace 3D Flash RT facilitates the interactive 3D reconstruction and visualization in real time of a volume in volume rendering technique, MPR, and MIP. InSpace 3D is focused to support the interventional radiologist and neuroradiologist in the angio lab.  Based on dedicated acceleration hardware the primary reconstruction results are available in full diagnostic quality</p>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>14417243</b>  <b>syngo interv. Neuro</b>  <b>Engine Pro</b></p>	<p>in the examination room within 18 seconds for high contrast images and less than one minute for soft tissue DynaCT images. Subsequent secondary reconstructions are available even faster.</p> <p>The application facilitates interactive volume rendering, accelerated by a high-end 3D graphics card. It offers support for large data records of up to 1,600 images (512 x 512 matrix).</p> <p><b>syngo iDentify (Dual Volume Visualization)</b>  Enables the differentiation between two high-contrast 3D objects that have virtually the same contrast density and allows the display of one low contrast and one high contrast volume in one view. <i>syngo iDentify</i> enables clear differentiation between contrast-filled vessels, bones, stents and coils. Furthermore, visualization of the anatomical structure of tumors in combination with the feeding vessels becomes possible.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>- Reconstruction protocols, for visualization of vessels, bones, clips and coils.</li> <li>- The result of the reconstruction can be native or subtracted.</li> <li>- Modification of reconstruction area to allow zoom via reconstruction.</li> <li>- Visualization with shading and light source for an improved three-dimensional impression.</li> <li>- Interventional volume measurement.</li> </ul> <p>Image data:</p> <ul style="list-style-type: none"> <li>- Volume data from AX, CT, MR, and PET modalities.</li> <li>- Loading of two volume data sets simultaneously.</li> <li>- Layouts: single (1on1), double (2 on1) and quadruple (4on1) for MPR display.</li> <li>- Two displays are supported for simultaneous display of two volumes side-by-side.</li> </ul> <p>Image display modes:</p> <ul style="list-style-type: none"> <li>- VRT, Color VRT, MIP, MinIP, and MPR rendering.</li> <li>- Thin slice renderings for VRT, MIP, and MinIP.</li> <li>- Variable light source.</li> <li>- Shading effects.</li> </ul> <p>Volume editing:</p> <ul style="list-style-type: none"> <li>- Cut planes.</li> <li>- Editing of clip planes and control volumes.</li> <li>- ROI punching.</li> </ul> <p>Presets:</p> <ul style="list-style-type: none"> <li>- Series-specific bookmarks, to store and retrieve volume visualization parameters.</li> <li>- Global presets for series-unspecific application of volume visualization parameters.</li> </ul> <p>Output:</p> <ul style="list-style-type: none"> <li>- Radial ranges, including macro range definitions.</li> <li>- 2D and 3D measurements, measurement grid, distance measurement and annotations.</li> <li>- AVI format export with selectable compression format and compression ratio.</li> <li>- TIFF, PNG, BMP, JPEG image export.</li> <li>- Send to film sheet.</li> </ul> <p><b>Advantages and features of InSpace 3D Flash RT</b>  In angiography the three-dimensional information is used for diagnosis, planning of therapy and documentation in the field of endovascular and non-endovascular interventional procedures.</p> <p>Diagnosis and treatment can be performed in one session, thus providing a major advantage through the fully integrated workflow.</p> <ul style="list-style-type: none"> <li>- Transfer of the projection angle to the C-arm stand.</li> <li>- Indication whether the angulation can be achieved at the C-arm without collision with the patient or table.</li> <li>- Interventional volume measurement.</li> </ul>



Part No. / Product	Description
<p><b>(Continued)</b>  <b>14417243</b>  <b>syngo interv. Neuro Engine Pro</b></p>	<p><b>InSpace 3D accessories</b>  Includes the accessories required for 3D reconstruction and visualization:</p> <ul style="list-style-type: none"> <li>- Plexiglas calibration phantoms</li> <li>- Line phantom for image quality control</li> <li>- Form filter</li> <li>- 3D data link</li> </ul> <p><b>syngo iPilot</b>  For any projection, zoom, SID and table position the physician can create an iPilot - view, which is superimposed on the live fluoro image. Via a fade with the joystick the degree of visibility can be determined. The physician can perform the procedure with more confidence. No extra contrast is needed to make the vessel tree visible.</p> <p>When the guidewire is visible on the live screen in the area the 3D reconstruction, the physician can press the "iPilot" button on the tableside control at any time.  An image is automatically calculated and sent to the reference storage of the imaging system. Via the Overlay Fade functionality the physician can show the 3D and 2D live information in one image.</p> <p><b>DICOM</b>  Industrial standard for the transmission of information between DICOM-compatible equipment from different manufacturers. The scope of functions is described in detail in the DICOM Conformance Statement and in the standard version includes the Transmission/ Reception, Query/ Retrieve and Basic Print functions.</p> <p><b>Note concerning DICOM interface(s)</b>  For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used.</p> <p>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>Functionalities across interfaces 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.</p> <p>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.</p> <p><b>Note on software usage</b></p> <ul style="list-style-type: none"> <li>- <b>syngo DynaCT:</b>  syngo DynaCT is especially suited to support radiologists and neuro-radiologists during interventional procedures in the angiography suite with both endovascular and non-endovascular procedures. syngo DynaCT provides enhanced decision making during oncology procedures such as chemoembolization and RF-ablations. In neuroradiology, syngo DynaCT allows the visualization of bleeds, the ventricular system of the brain and microstent placement.</li> </ul> <p>With syngo DynaCT it is possible to visualize a density difference of 10 HU (Hounsfield Units) of an object 5 mm in size, or 5 HU for an object 10 mm in size, in a Thick-MPR display (measured with a CATPHAN 16 CT phantom with the CTP 515 module).</p> <p>In software version VC21 and higher, DynaCT also offers:</p> <ul style="list-style-type: none"> <li>- a new reconstruction algorithm optimized for fan beam geometry</li> <li>- 20sDR-H 109 kV for native DynaCT e.g., for detecting bleeding</li> <li>- faster 3D acquisition in 4x4 Binning mode</li> </ul> <ul style="list-style-type: none"> <li>- <b>In-room Control:</b>  The InRoom Control software extension allows for remote control of the syngo Workplace from the examination room via touchscreen and joystick.  For this, another set of functions is offered on the Artis touchscreen for InSpace3D and syngo InSpace EP (if available). These are implemented for 3D navigation and allow the user to manipulate the 3D image displayed in the examination room.</li> </ul> <ul style="list-style-type: none"> <li>- <b>syngo Neuro PBV IR:</b></li> </ul>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>14417243</b>  <b>syngo interv. Neuro Engine Pro</b></p>	<p>Based on a special <i>syngo</i> DynaCT acquisition program with automatic processing, the blood volume is displayed color-coded. This offers special advantages during neuroradiological interventions (e.g., stroke/malformation) because it allows under- and oversupplied parenchymal areas to be displayed.</p> <ul style="list-style-type: none"> <li>- <i>syngo</i> InSpace 3D Stenosis Measurement: Vascular evaluation for <i>syngo</i> InSpace 3D Flash, <i>syngo</i> InSpace 3D Pro, and for <i>syngo</i> InSpace Viewer:</li> <li>- Automated contour detection and path planning in the vessel tree.</li> <li>- Determination of degree of stenosis.</li> <li>- Automatic and manual reference diameter determination.</li> </ul> <p>Easy and comfortable handling enables measurement during an intervention at the examination table.</p> <ul style="list-style-type: none"> <li>- <i>syngo</i> Neuro Aneurysm Analysis and Virtual Stent <i>syngo</i> Neuro Aneurysm Analysis and Virtual Stent bundles the functions for segmenting intracranial aneurysms including the determination of volume, height, length, and diameter and the functions for planning a virtual stent. First, an interventional 3D acquisition is created for segmentation (vascular construction) and subsequent analysis. Automatic segmentation is then performed and the values for dome height, ostium diameter, and aneurysm volume are calculated automatically. A virtual stent can be adjusted and positioned in the best possible manner for the aneurysm. The live image can then be superimposed on this 3D stent and the aneurysm volume to support the positioning of stents, flow diverters, or coils.</li> <li>- <i>syngo</i> iPilot (Enhanced Functionality) <i>syngo</i> iPilot (enhanced functionality) allows the overlay of the colored 3D volume with regular fluoro as well as with subtracted fluoro (Roadmap) and acquisition series on the display of the <i>syngo</i> Workplace. Therefore the iPilot information is available in parallel with the regular or subtracted fluoro or acquisition images on the live display of the acquisition system. <i>syngo</i> iPilot automatically updates all table, C-arm, zoom and SID changes. Even patient movement can be manually updated.</li> <li>- <i>syngo</i> Angio Package: The <i>syngo</i> Angio package enables dynamic review of DSA scenes (in subtracted or native display) and their postprocessing at the <i>syngo</i> Workplace, with functions such as: <ul style="list-style-type: none"> <li>- Remasking.</li> <li>- Pixelshift.</li> <li>- Anatomic background.</li> <li>- Opacification etc.</li> <li>- Review of DYNAVISON and PERIVISION scenes</li> </ul> </li> </ul> <p>The high-speed functionality increases the image review frequency, especially of biplane and single-plane cardiac scenes, depending on the frame rate and the <i>syngo</i> Workplace hardware used.</p> <p>With the current <i>syngo</i> Workplace hardware the following maximum image review frequencies of the scenes can be achieved:</p> <p>Biplane (native):</p> <ul style="list-style-type: none"> <li>- 6 f/s with a 1024<sup>2</sup> matrix</li> <li>- 15 f/s with a 512<sup>2</sup> matrix</li> </ul> <p>Monoplane (native):</p> <ul style="list-style-type: none"> <li>- 15 f/s with a 1024<sup>2</sup> matrix</li> <li>- 30 f/s with a 512<sup>2</sup> matrix</li> </ul> <ul style="list-style-type: none"> <li>- <i>syngo</i> iFlow: <i>syngo</i> iFlow allows the visualization and analysis of the flow and perfusion in the examined organs This information is based on the time-to-peak calculations from a routine DSA acquisition. The calculations can be shown as a color-map of the whole organ. It is also possible to analyze the flow and perfusion of regions of interest (ROIs) defined by the user and this information can be displayed with graphics, which might further help in understanding</li> </ul>

Part No. / Product	Description
<b>(Continued)</b> <b>14417243</b> <b>syngo interv. Neuro Engine Pro</b>	<p>the flow dynamics of these ROIs.</p> <ul style="list-style-type: none"> <li>- <i>syngo</i> Scene Compare: Dual monitor support with biplane review functionality for the postprocessing of DSA scans. A monitor available separately supports the evaluation of bi-planar scans in synchronized mode and can also be used to compare scans to single images. This also enables the dynamic comparison of two scenes.</li> </ul>
<b>14417248</b> <b>syngo Embolization Guidance</b>	<p>Based on a 3D acquisition, relevant vessels are marked and a vascular midline calculated. The ability to graphically overlay it with the current fluoroscopy image supports embolization of e.g. tumor-feeding vessels. Includes the license for <i>syngo</i> Embolization Guidance.</p>
<b>14417057</b> <b>syngo iGuide w/ InSpace 3D3D Fusion</b>	<p><i>syngo</i> iGuide provides a menu-guided intuitive 3-step approach for consistent needle results:</p> <p>Step 1: Definition and check of the needle path on a DynaCT or external CT data set.</p> <p>Step 2: Check of automatically proposed progression views that will be used for monitoring the needle procedure.</p> <p>Step 3: Alignment and progression of the needle under fluoro control while the planned needle path is overlaid on the live image of the acquisition system. Easy switch between the defined progression views to control the real needle position and direction.</p> <p>Subsequently, a control scan can be performed using <i>syngo</i> InSpace 3D/3D Fusion. <i>syngo</i> DynaCT, CT, or MR images are accepted for the image fusion. Studies can be done with the same modality or with different modalities.</p> <p>Registration Algorithms:</p> <ul style="list-style-type: none"> <li>- easy-to-use visual alignment with 6 degrees of freedom (3x translation, 3x rotation)</li> <li>- landmark based registration with convenient landmark editor for point-based registration using anatomical landmarks</li> <li>- storage of transformation matrix with datasets after registration for later retrieval</li> </ul> <p>Visualization Techniques:</p> <ul style="list-style-type: none"> <li>- Side-by-side visualization of both data sets with correlated pointer and correlated scrolling with dog ears</li> <li>- 2D alpha-blending in monochrome or pseudo-color with adjustable balance between the two superimposed data sets.</li> </ul>
<b>14409272</b> <b>syngo iGuide Toolbox</b>	<p><b>Linked Marker</b> 'Linked Marker' is used to display a graphical reference overlaid to the live image marking an anatomical structure that is visible in the 3D volume or marking the pathway for a puncture to guide the needle.</p> <p>The 'Linked Marker' tool places points or lines onto the 3D data set. Placement can be performed either in the MPR view or directly in the VRT view. Either all or selected graphics may be overlaid on the current live image – Fluoro, Roadmap or Acquisition – in order to support the user during an intervention. Modifications such as e.g. moving, resizing, deleting any selected graphics are possible.</p> <p>'Linked Marker' graphics may be saved with the 3D data set. That means these points and lines can be archived for later review with the 3D data.</p> <p><b>Linked Pointer</b> 'Linked Pointer' displays the current mouse cursor position on the 3D volume and matches the corresponding position on the live monitor.</p> <p>With 'Linked Pointer' function selected, all cursor movements in the InSpace MPR view are simultaneously shown at the corresponding position in the 2D image on the live monitor.</p> <p><b>Linked Contours</b> 'Linked Contours' displays a graphical outline on the live monitor to indicate the shape or contour of the 3D volume displayed on the <i>syngo</i> Workplace. It may be used to give the user a hint of the 3D volume on the live monitor, e.g.</p>

Part No. / Product	Description
<b>(Continued)</b> <b>14409272</b> <b>syngo iGuide</b> <b>Toolbox</b>	<p>a stent or a coiling basket.</p> <p>Selecting the function 'Linked Contour' will generate a graphical display of the outlines in the 3D volume and overlay it on to the image – Fluoro, Roadmap or Acquisition – on the live monitor.</p> <p>The displayed contours are dependent on the current rendering settings (VOI, punching, windowing, transparency) of the displayed volume.</p> <p>Geometrical changes (stand angulation, zoom size, SID, table positions) will automatically result in an update of the displayed graphics on the live monitor.</p>
<b>14402033</b> <b>19in Color Flatscreen</b> <b>Display</b>	<p>The Siemens 19" LCD flatscreen display features a very high contrast even under very bright ambient light conditions. The Gamma curve was precisely adapted to the CIE-/DICOM recommendation and is thus suited especially for gray scale display.</p> <p>LCD flatscreen display</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) screen size</li> <li>- Resolution: 1,280 x 1,024 (pixel)</li> <li>- guaranteed brightness for the entire service life: 137 cd/m<sup>2</sup> at a contrast ratio of 300:1</li> <li>- Flicker-free and distortion-free image display</li> <li>- Anti-glare screen</li> </ul> <p>The controlled background lighting provides stable lighting throughout the entire product life cycle.</p>
<b>14401884</b> <b>syngo QVA Vascular</b> <b>Analysis</b>	<p>Scientific measuring program for objective, accurate and reproducible vessel evaluation:</p> <ul style="list-style-type: none"> <li>- Automated contour detection.</li> <li>- Determination of degree of stenosis.</li> <li>- Automatic and manual reference diameter determination.</li> <li>- Automatic and manual calibration methods.</li> <li>- Distance and angle measurement.</li> </ul>
<b>14417298</b> <b>syngo IZ3D - large</b> <b>vessel</b>	<p>QVA 3D enables interactive 3D reconstruction and visualization of vessel segments, including bifurcations. QVA 3D is especially suited for support in interventional angiography; especially during stenting procedures.</p> <p>A three-dimensional vessel segment is reconstructed from at least two selected projections. Especially to be used for vessel sizes between 3 mm and 42 mm.</p> <p><b>Advantages and features of QVA 3D</b></p> <p>In interventional angiography three-dimensional information is used for diagnosis, therapy planning, and documentation.</p> <ul style="list-style-type: none"> <li>- Interventional length and distance measurement</li> <li>- Stenosis measurement.</li> <li>- Determination of diameter</li> <li>- Determination of bifurcation angle.</li> <li>- Display of 3D image data in the examination room via an in-room display.</li> </ul>
<b>14402033</b> <b>19in Color Flatscreen</b> <b>Display</b>	<p>The Siemens 19" LCD flatscreen display features a very high contrast even under very bright ambient light conditions. The Gamma curve was precisely adapted to the CIE-/DICOM recommendation and is thus suited especially for gray scale display.</p> <p>LCD flatscreen display</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) screen size</li> <li>- Resolution: 1,280 x 1,024 (pixel)</li> <li>- guaranteed brightness for the entire service life: 137 cd/m<sup>2</sup> at a contrast ratio of 300:1</li> <li>- Flicker-free and distortion-free image display</li> <li>- Anti-glare screen</li> </ul>

Part No. / Product	Description
<b>(Continued)</b> <b>14402033</b> <b>19in Color Flatscreen Display</b>	The controlled background lighting provides stable lighting throughout the entire product life cycle.
<b>14404958</b> <b>syngo Dicom SR Viewer #X</b>	For optimized display of reports that were created with <i>syngo</i> applications the <i>syngo</i> DICOM SR Viewer gets delivered with dedicated templates. Unknown report types (e.g. from other vendors) are displayed by using a generic template.
<b>14401888</b> <b>syngo Angio-Leg Composing SW-Lic.</b>	The image series are created in the Peristepping or Perivision mode and combined to a native full-format image on the LEONARDO/syngo Workplace. Printout of the full-format images on laser or paper printer possible. For diagnostic purposes, hardcopy cameras/laser printers explicitly approved for this system may be used only.
<b>14401895</b> <b>syngo Security Package</b>	This SW license enables the LEONARDO/syngo Workplace System to support enhanced user and system management, including: <ul style="list-style-type: none"> <li>- user authentication to prohibit unauthorized access</li> <li>- privileges to define user/role based functionality</li> <li>- permissions to control data access.</li> <li>- audit trails to log system and data access.</li> </ul>
<b>04472853</b> <b>syngo keyboard, USA</b>	Keyboard for easy operation of syngo (browser, viewer, filming). There are special keys for windowing, scrolling, printing, marking and network communication.
<b>14409273</b> <b>syngo Expert-i</b>	When clinical questions arise at the <i>syngo</i> Workplace, a second user with a Windows PC can quickly and efficiently access the <i>syngo</i> Workplace via the network. He or she can assume full control of every application on the <i>syngo</i> Workplace and can see all screen contents that is displayed for the local user on the main monitor. This allows the parties involved to discuss clinical questions via phone and quickly reach solutions on a joint basis.
<b>14417023</b> <b>3D / Dynavision</b>	Angle and ECG-triggered digital rotation angiography with corresponding image data transfer to a <i>syngo</i> X Workplace for 3D image data reconstruction. <ul style="list-style-type: none"> <li>- Rotation speed is up to 60°/s (Artis zee ceiling, Artis zeego) and 45°/s (Artis zee floor, Artis zee biplane).</li> <li>- Angle triggering allows a reduction in dose through a reduced acquisition frame rate while at the same time achieving better image quality.</li> <li>- All parameters required for the 3D reconstruction are included in the organ program. This enables optimized image quality and easy handling.</li> <li>- Acquisitions with frame rates in 1k matrix from 0.5 to 7.5, 10, 15, 30 f/s (standard) and 60 f/s with reduced spatial resolution can be selected,</li> </ul> Includes DYNAVISON DR for native and DYNAVISON DSA for subtracted (with DSA option only) rotational angiography. Reconstruction at the <i>syngo</i> X Workplace is not possible with these operating modes.
<b>14427218</b> <b>Detector 30x40 Crossh.(A) 30x40(B)</b>	<b>Flat detectors 30 x 40 (for both planes)</b> The digital high-resolution dynamic flat detectors with integrated removable grid are especially designed to fulfill the requirements of angiographic and interventional applications.  154 µm pixel arrays provide highest spatial resolution (3.25 LP/mm) and excellent contrast. Fluoroscopy as well as image acquisition are always done in 14-bit gray scale resolution, allowing excellent detail visibility.  Usable input formats: <ul style="list-style-type: none"> <li>- Overview mode 30 cm x 38 cm.</li> <li>- Zoom 1: 30 cm x 30 cm; diagonal 42 cm.</li> <li>- Zoom 2: 22 cm x 22 cm; diagonal 32 cm.</li> <li>- Zoom 3: 16 cm x 16 cm; diagonal 22 cm.</li> <li>- Zoom 4: 11 cm x 11 cm; diagonal 16 cm.</li> <li>- Zoom 5: 8 cm x 8 cm; diagonal 11 cm.</li> </ul>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>14427218</b>  <b>Detector 30x40</b>  <b>Crossh.(A) 30x40(B)</b></p>	<p>The very compact design with integrated collision protection provides maximum C-arm angulation range for excellent patient access.</p> <p>The flat detectors are mounted on a motorized rotating turntable at the C-arm. They can be rotated by 90°, so that they can be adjusted to landscape format or portrait format. Any angle in between can be adjusted. Motorized adjustment of the detector-patient distance.</p> <p>The digital data transfer from the detectors to the imaging system is done via a high speed Gigalink fiber optic cable.</p> <p>Removable grid:  The grid can easily be removed, saving the user time in examinations not requiring a grid. For example in pediatrics, where dose reduction is especially important.</p> <p>Laser crosshairs:  Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and dose-saving positioning of the patient.</p> <p>The 30 x 40 flat detectors offer additional operating functions directly on the detector housing, such as angulation, FD rotation (cranial/caudal, RAO/LAO), and change of the focus-detector distance.</p> <p><b>Tube assembly MEGALIX Cat Plus 125/20/40/80-12xGW</b>  Two 3-focus high-performance X-ray tubes with flat emitter technology, metal center tube in lubricated spiral groove bearing technology for permanent, noise-free rotation.</p> <ul style="list-style-type: none"> <li>- Maximum tube voltage 125 kV</li> <li>- Focus: 0.3/0.6 x 0.6*/1.0 (17/38/80 kW)</li> <li>- Anode angle 12°</li> <li>- Maximum anode heat storage capacity: 3,375,000 HU</li> <li>- Maximum tube current for fluoroscopy: 250 mA</li> </ul> <p>* Image quality improved</p> <p>High tube power provides brilliant image quality even with heavier patients. In addition there is no need for X-ray pauses even during lengthy cases. The X-ray tube is completely silent, which is an additional benefit for patient and user.</p> <p><b>Angio collimators</b>  Two compact multileaf collimators for DSA and cardiological applications with rectangular diaphragm, wedge-shaped filter diaphragms and finger-shaped graduated filter.</p> <ul style="list-style-type: none"> <li>- Automatic synchronous rotation of detector and collimator unit to compensate image rotation in the different working positions of the gantry.</li> <li>- Manual rotation of the detector and collimator unit using the control right on the detector housing.</li> <li>- Five-step adaptive Cu pre-filtration (CAREfilter) to reduce the equivalent skin dose and improve radiation quality through dose saving for the soft radiation parts. Filter steps: 0.1; 0.2; 0.3; 0.6; 0.9 mm Cu.</li> <li>- Independent rotation and shifting of filter diaphragms.</li> </ul> <p>Electronics unit with DIAMENTOR measurement chamber integrated in the collimator housing, for acquisition of the dose-area product and the calculated patient entry dose (CAREwatch).</p>
<p><b>14427091</b>  <b>Table OR Version</b></p>	<p>Floor-mounted patient positioning table designed for angiographic examinations and interventions.</p> <ul style="list-style-type: none"> <li>- Direct patient access from all sides, both through the swiveling table and large tabletop cantilever.</li> <li>- ±15° head up/head down positioning.</li> <li>- ±15° lateral tilting range.</li> <li>- Iso-tilt functionality for maintaining the projection during table tilt along the patient axis.</li> <li>- Motorized, power-dependent table movement in longitudinal direction when the table is tilted (power-assisted control).</li> <li>- Electromechanical release of table swivel at the touch of a button at the table.</li> <li>- Telescopic foot with motor-driven height adjustment.</li> </ul>

Part No. / Product	Description
<b>(Continued)</b> <b>14427091</b> <b>Table OR Version</b>	<ul style="list-style-type: none"> <li>- Max. patient weight 200 kg. Accessories weighing up to 40 kg can also be installed.</li> </ul>
<b>14404984</b> <b>PERISTEPPING /</b> <b>PERIVISION</b>	<p>Excellent image quality from the abdomen to the feet is due to the fact that adjustable parameters such as acquisition framerate, measuring fields, position of collimator blades and semitransparent filters are stored specifically for each table position. That way the different X-ray transparencies for abdomen, legs and feet can be compensated and a consistent, contrasty image quality is provided.</p> <p>Just one single injection of contrast media protects the health of the patient and gives the physician an instant, subtracted image display of the peripheral blood vessels.</p> <p><b>PERISTEPPING:</b> Peripheral digital stepping angiography with only a single contrast medium injection under visual control of the bolus flow. C-arm stepping with ceiling mounted systems, table stepping with floor mounted and biplane systems.</p> <ul style="list-style-type: none"> <li>- Position-dependent variable frame rates.</li> <li>- Fully automatic exposure control.</li> <li>- Automatic storage of the collimator settings for each step.</li> </ul> <p><b>PERIVISION:</b> Peripheral digital stepping angiography with online subtraction display in an examination procedure with only one single contrast medium injection under visual control of the bolus flow.</p> <ul style="list-style-type: none"> <li>- Only one single automatically acquired mask image for each individual position.</li> <li>- Position-dependent variable frame rates.</li> <li>- Fully automatic exposure control.</li> <li>- Automatic storage of the collimator setting for each step.</li> </ul>
<b>14402094</b> <b>table top (narrow) /</b> <b>mattress (thin)</b>	<p>Narrow-shaped carbon fiber patient tabletop with head-end recess, e.g. for cardiological applications. Tabletop tapered in the thorax area for maximum freedom of C-arm angulation.</p> <p>Matching, special-foam mattress, 4 cm, made of open-pore polyurethane material.</p> <p>This visco-elastic comfort mattress for tabletop narrow, reacting to temperature, has the special property of adapting to the individual body shape under the influence of body weight and heat.</p>
<b>14417457</b> <b>Connection Kit - 2nd</b> <b>Foot Switch</b>	<p>As a result, two foot switches can be connected directly to the table.</p> <p>One foot switch is connected via cable, the other is wireless.</p>
<b>14417181</b> <b>DCS8ext DVI 4xBWD-</b> <b>19D(2xL+2xR+4xF)</b>	<p>Ceiling-mounted, swiveling, rotatable and height-adjustable display suspension system with longitudinal travel and four 19" high-contrast b/w displays for live and reference image display in the examination room.</p> <p>The double-articulated arm of the extended display suspension system provides greater flexibility and a larger display positioning range.</p> <p>There are four free slots for mounting four additional displays.</p> <p>Flat displays in monochrome TFT technology with high luminance and extended viewing angle.</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) monitor.</li> <li>- Resolution: 1280 x 1024 pixels.</li> <li>- Guaranteed brightness for the entire service life: 400 cd/m<sup>2</sup> at a contrast ratio of 500:1.</li> <li>- Flicker-free and distortion-free image display.</li> <li>- Ambient light sensor for optimum adaptation of the image display to the room brightness.</li> </ul>
<b>14407192</b> <b>Roadmap Plus DCS</b> <b>DVI (Biplane)</b>	<p>Two flat displays in monochrome TFT technology with high luminance and extended viewing angle.</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) monitor.</li> <li>- Resolution: 1280 x 1024 pixels.</li> <li>- Guaranteed brightness for the entire service life: 400 cd/m<sup>2</sup> at a contrast ratio of 500:1.</li> <li>- Flicker-free and distortion-free image display.</li> <li>- Ambient light sensor for optimum adaptation of the image display to the room brightness.</li> </ul>

Part No. / Product	Description
<b>(Continued)</b> <b>14407192</b> <b>Roadmap Plus DCS</b> <b>DVI (Biplane)</b>	<p>The following is displayed on the additional display with the enhanced Roadmap function per plane:</p> <ul style="list-style-type: none"> <li>- During fluoro native live fluoro image; otherwise Last Image Hold.</li> <li>- During Roadmap/subtracted fluoro native live fluoro image; otherwise LIH.</li> <li>- During DSA acquisition native live acquisition; otherwise native max-fill image.</li> </ul> <p>The following are displayed with the dual reference function per plane:</p> <ul style="list-style-type: none"> <li>- An additional static reference image for parallel display of two reference images on separate displays.</li> </ul>
<b>14427291</b> <b>19" color display with</b> <b>video cable</b>	<p>The Siemens 19" LCD color display features very high contrast even under very bright ambient light conditions. The Gamma curve was precisely adapted to the CIE/DICOM recommendation and is thus especially suited for gray scale display.</p> <p>LCD flatscreen display</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) screen size</li> <li>- Resolution: 1280 x 1024 (pixels)</li> <li>- Guaranteed brightness for the entire service life: 137 cd/m<sup>2</sup> at a contrast ratio of 300:1</li> <li>- Flicker-free and distortion-free image display</li> <li>- Anti-glare screen</li> </ul> <p>The controlled background lighting provides stable lighting throughout the entire product life cycle.</p>
<b>14427294</b> <b>Video splitter</b>	<p>Using the connection kit, one DVI-D video signal of a unit is quadrupled. One of these remains available for the original use, for example by a display in the control room. The other can be connected to DVI-D video inputs of the Siemens video signal distributor using video cables that can be ordered separately.</p> <p>The inputs support a maximum resolution of 1920x1200.</p> <p>It includes the following components:</p> <ul style="list-style-type: none"> <li>- a video splitter</li> </ul>
<b>14427298</b> <b>4x1 video signal</b> <b>distributor</b>	<p>There are 4 DVI-D video inputs available. One of these video signals can be output on up to two DVI-D video outputs.</p> <p>Note: The video input to be displayed is selected on the patient table in the examination room using a touch-sensitive display.</p>
<b>14427295</b> <b>Analog/digital video</b> <b>converter</b>	<p>Using a connection kit, a VGA, DVI (up to a resolution of 1600 x 1200), SVideo, or BAS video signal is converted into a DVI-D video signal.</p> <p>Note: This kit can be used only if at least one VGA or DVI connection is available on the unit.</p> <p>It includes the following components:</p> <ul style="list-style-type: none"> <li>- An analog - digital video converter</li> </ul>
<b>14427288</b> <b>Digital video cabling</b>	<p>The inputs support a maximum resolution of 1920x1200.</p> <p>It includes the following components:</p> <ul style="list-style-type: none"> <li>- A DVI to fiber-optic cable adapter</li> <li>- A fiber-optic cable (36 meters)</li> <li>- A fiber-optic cable to DVI adapter</li> <li>- Two 5 volt power supplies for the adapters</li> <li>- Two DVI to HDMI adapters</li> </ul>
<b>14417310</b> <b>LD input VGA ext.</b> <b>(ultrasound)</b>	<p>For analog video signals with SXGA 1280 x 1024 or VGA 640 x 480 output (e.g. ultrasound), directly connectible at the examination table.</p> <p>Consisting of:</p>



Part No. / Product	Description
<b>(Continued)</b> <b>14417310</b> <b>LD input VGA ext.</b> <b>(ultrasound)</b>	<ul style="list-style-type: none"> <li>- a video separator and OTV-VGA splitter for the external analog video monitor signal</li> <li>- two HD 15 VGA cables, one 40 m and one 5 m in length</li> <li>- a VGA adapter cable for 5 x BNC, 0.6 m and 1 m in length</li> <li>- an adapter</li> <li>- an MDM container slide-in tray for attaching the components in the container</li> </ul> <p>* To display images from third-party video sources on the Large Display interfaces for external video signals, note the following requirements:</p> <ul style="list-style-type: none"> <li>- The connection of third-party devices is only permissible if they meet the specifications of the LD interface.</li> <li>- The connection of the LD interface to the LD controller must be performed by a Siemens service technician.</li> <li>- The connection to the third-party device must always be performed by the technician of the third-party company or by the responsible on-site hospital technician.</li> <li>- Siemens cannot assume any warranty for the connection of the third-party device with respect to the image quality and its suitability for diagnosis.</li> <li>- For this reason, it is strongly recommended that the image quality tests prescribed by the third-party manufacturer are performed again prior to use. These tests can ensure that the required image quality is achieved.</li> <li>- The system configurator is responsible for ensuring that the valid versions of the relevant standards are met.</li> </ul> <p>Should you have any questions, please call the LD hotline: +49 (9191) 18-8099. In the USA, please call the local LD hotline.</p>
<b>14407196</b> <b>C-Room DVI 4xBWD-</b> <b>19C (2xL+2xR) -36m</b>	<p>Four 19" high-contrast b/w displays for live and reference image display in the control room. Table design with black frame.</p> <p>Displays in monochrome TFT technology with high luminance and extended viewing angle.</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) monitor.</li> <li>- Resolution: 1,280 x 1,024 (pixel).</li> <li>- Guaranteed brightness for the entire service life: 400 cd/m<sup>2</sup> at a contrast ratio of 500:1.</li> <li>- Flicker-free and distortion-free image display.</li> <li>- Ambient light sensor for optimum adaptation to the room brightness.</li> </ul>
<b>04435850</b> <b>Vessel analysis</b>	<p>Measuring program integrated in the imaging system for objective, precise and reproducible evaluation of vessels.</p> <ul style="list-style-type: none"> <li>- Automated contour detection.</li> <li>- Determination of degree of stenosis.</li> <li>- Automatic and manual reference diameter determination.</li> <li>- Automatic and manual calibration methods.</li> <li>- Distance and angle measurement.</li> </ul> <p>The vascular analysis allows precise quantification under sterile conditions, direct at table side with the touchscreen control. This speeds up the intervention and makes the procedure safer for the patient. The reports can be easily stored in the patient folder for documentation and to show the correct analysis of dilatations etc. Especially to be used for vessel sizes between 3mm and 42mm.</p>
<b>04435801</b> <b>Automap</b>	<p>Optimized procedure workflow, especially during interventions is the result of the automap-function. A selected reference image displaying the needed medical information (e.g. before dilatation) is used as the basis for moving the system to the correlated position automatically. The intervention can be continued immediately without manually repositioning the patient. Vice versa, an already stored reference image for a dedicated system position is automatically displayed when automap is selected, making it easy to switch from one angulation to another with instantly available image information.</p>
<b>04443516</b> <b>MULTISPACE.F</b>	<p>Manual stand rotation for free positioning of system and table relative to each other, for example for the following additional work positions:</p> <ul style="list-style-type: none"> <li>- Left-side patient access.</li> <li>- OR work, standby and park position.</li> </ul>

Part No. / Product	Description
(Continued) 04443516 MULTISPACE.F	<ul style="list-style-type: none"> <li>- Orthogonal system control, along patient longitudinal axis.</li> </ul>
04435926 DICOM HIS / RIS	<p><b>DICOM MWL (Modality Worklist):</b> Import of patient/examination data from an external RIS/HIS patient management system.</p> <p><b>Note concerning DICOM interface(s)</b> For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used.</p> <p>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>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.</p> <p>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.</p>
04491960 DICOM MPPS	<p><b>DICOM MPPS (Modality Performed Procedure Step)</b> Sending of dose data, patient data, and examination data to an external RIS/HIS patient management system. Sent in MPPS:</p> <ul style="list-style-type: none"> <li>- <b>Total dose-area product</b></li> <li>- <b>Number of exposures</b></li> <li>- <b>kV</b> per image (DICOM Exposure Dose Sequence)</li> <li>- <b>ms</b> per image</li> <li>- <b>mA</b> per image</li> </ul> <p><b>Note concerning DICOM interface(s)</b> For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used.</p> <p>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>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.</p> <p>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.</p>
04435892 DICOM Print	<p>DICOM Print: printing of images by means of a virtual filmsheet on a DICOM laser camera. Selecting "Auto-Print" automatically forwards the images stored in 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 on the virtual filmsheet, which the user can review and edit on the monitor at any time. As a result, printing is only required after the layout has been optimized on the monitor, saving time and costs.</p> <p><b>Note concerning DICOM interface(s)</b> For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used.</p> <p>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>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.</p> <p>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.</p>

Part No. / Product	Description
<b>(Continued)</b> <b>04435892</b> <b>DICOM Print</b>	With regard to expenses for interface configurations that might be required, the agreements on maintenance/service of the product apply.
<b>04484080</b> <b>Syngo security package (SW lic.)</b>	SW-License for enabling AXIOM Artis to support enhanced user management, including <ul style="list-style-type: none"> <li>- User authentication to prohibit unauthorized access</li> <li>- Privileges to define user/role based functionality</li> <li>- Permissions to control data access</li> <li>- Audit trails to log system and data access</li> </ul>
<b>14400136</b> <b>HIPAA Admin Training</b>	After installation of the <i>syngo</i> Security System the operator must name a person (IT security administrator) and a deputy whose task it is to regularly control the operating state and to be at the users' disposal in case of questions. They are responsible for determination, execution and control of the local security guidelines.  The workshop will treat the following topics: <ul style="list-style-type: none"> <li>- Overview on HIPAA requirements.</li> <li>- The participants will learn strategies and their practical application concerning security-relevant requirements in the hospital.</li> <li>- They will be able to support and train users with all security-relevant systems.</li> <li>- After successfully attending the workshop, every participant will receive a certificate.</li> </ul>
<b>14417134</b> <b>LB rad. protection w/ pivot arm</b>	The lower body radiation protection can be attached to the accessory rails either on the right or on the left side of the patient positioning table. It consists of the following independent shielding units: <ul style="list-style-type: none"> <li>- A basic unit shielding the area between accessory rails and the floor. It is flexible and can be adapted to the examiner's preferences.</li> <li>- One LB radiation protection pivot swivel element that can move out of the way during collisions with the tube and still retain its protective function.</li> <li>- Two clip-on units pointing upwards from the upper edge of the basic unit with a length of 57 cm and 27 cm.</li> </ul> The scattered radiation shielding units can be attached to the basic unit in an overlapping and fan-shaped way to allow closed, adapted scattered radiation protection even in the lower thorax area. The maximum load of the accessory rails is 40 kg, the weight of the attached scattered radiation protection is 8 kg.
<b>14401912</b> <b>Upper Body Rad. Protection Artis-F</b>	Radiation protection attached via a ceiling-mounted, mobile stand for protection against scattered radiation; inc. 4 m ceiling rail. <ul style="list-style-type: none"> <li>- Swivable and rotatable around the fixing point, range of rotation 360°.</li> <li>- Counter-balanced, height-adjustable support arm.</li> <li>- Acrylic glass with Pb equivalent of 0.5 eq (w x h: 61 cm x 76 cm).</li> </ul>
<b>14427095</b> <b>syngo Keyboard, English - US</b>	Keyboard for easy operation of <i>syngo</i> (browser, viewer, filming). There are special keys for windowing, scrolling, printing, marking and network communication.
<b>14400133</b> <b>Thin mattress for narrow table</b>	This visco-elastic comfort mattress for tabletop narrow, reacting to temperature, has the special property of adapting to the individual body shape under the influence of body weight and heat.
<b>14402008</b> <b>Head support with set of pads</b>	The AXIOM Artis head holder is used for immobilizing the patient's head during examinations and treatments. The patient's head is fixed in the head holder using the pads or the wedge. The head holder is mounted to the tabletop with two knurled screws and a mounting device. The thin table mattress must be used for patient examination.
<b>04453978</b> <b>Head module</b>	The insert with accessory rails attached to the right, left and head end slides over the outer edges of the patient positioning tabletop.

Part No. / Product	Description
<b>(Continued)</b> <b>04453978</b> <b>Head module</b>	<p>It is locked in place through two locking bolts on either side. The part to be inserted underneath the tabletop consists of radiolucent carbon fibre material, which avoids disturbing edges in the image.</p> <ul style="list-style-type: none"> <li>- load capacity of the accessory rails: 40 kg max.</li> <li>- length of the accessory rails: 45 cm.</li> </ul>
<b>04451139</b> <b>Body module, narrow</b>	<p>The insert with accessory rails attached to the right and left slides over the outer edges of the patient positioning tabletop.</p> <p>It is locked in place through two locking bolts on either side. The part to be inserted underneath the tabletop consists of radiolucent carbon fibre material, which avoids disturbing edges in the image.</p> <ul style="list-style-type: none"> <li>- load capacity of the accessory rails: 40 kg max.</li> <li>- length of the accessory rails: 47 cm.</li> </ul>
<b>04453986</b> <b>Body module</b>	<p>The insert with accessory rails attached to the right and left slides over the outer edges of the patient positioning tabletop.</p> <p>It is locked in place through two locking bolts on either side. The part to be inserted underneath the tabletop consists of radiolucent carbon fibre material, which avoids disturbing edges in the image.</p> <ul style="list-style-type: none"> <li>- load capacity of the accessory rails: 40 kg max.</li> <li>- length of the accessory rails: 45 cm.</li> </ul>
<b>04443243</b> <b>Armholder (pair)</b>	<p>For Artis tabletops, the two arm holders help to laterally position the arms comfortably along the patient's body. They are slid laterally underneath the mattress, level with arms, and fixed by the patient's body weight. The patient's arms can be immobilized with commercially available fixing straps. Two pairs of arm holders of different length and height (matching the mattress height) are supplied, that are suitable both for thick and thin mattresses.</p>
<b>14409445</b> <b>Kyphoplasty arm rest</b> <b>"UNI"</b>	<p>This support makes it possible to position the patient's arm comfortably in various positions underneath the tabletop, e.g. in the elbow position at an angle of 90° parallel or transversally to the tabletop. The positioning of the arms can be adjusted according to the arm length and thickness with an additional pad for the armrest.</p> <p>The patient's head can be comfortably positioned in a special head holder for children or adults (options).</p> <p>The arm rest is attached to the tabletop under the mattress without the need for an additional attachment.</p>
<b>14409446</b> <b>Kyphoplasty arm rest</b> <b>"CARD"</b>	<p>This support makes it possible to position the patient's arm comfortably in various positions underneath the tabletop, e.g. in the elbow position at an angle of 90° parallel or transversally to the tabletop. The positioning of the arms can be adjusted according to the arm length and thickness with an additional pad for the armrest.</p> <p>The patient's head can be comfortably positioned in a special head holder for children or adults (options).</p> <p>The arm rest is attached to the tabletop under the mattress without the need for an additional attachment.</p>
<b>14409397</b> <b>Head Holder (prone pos., adults)</b>	<p>During interventions requiring the patient to be positioned on the tabletop in prone position, the head can comfortably be positioned on a head pad filled with soft gel material.</p> <p>An oxygen tube can be laterally passed to the patient's mouth.</p>
<b>M2ART700TABL</b> <b>Mark 7 Arterion,</b> <b>Table Mount Injector</b>	<p>The Arterion Mark 7 Table contrast medium injector allows for the remote installation of the system power supply and installation of the injector head onto a table bracket.</p> <p>The injector system includes:</p> <ul style="list-style-type: none"> <li>- Power supply and injector head with corresponding cabling</li> <li>- An adjustable height table bracket for the injector head</li> <li>- A desk mounted user control console with large touch screen</li> </ul> <p><b>Functions</b></p> <p>Pressure limitation:</p> <ul style="list-style-type: none"> <li>- for 150 ml syringes 689 to 8273 kPa, corresponds to 100 to 1200 psi. .</li> </ul>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>M2ART700TABL</b>  <b>Mark 7 Arterion,</b>  <b>Table Mount Injector</b></p>	<p>Flow rates for 150 ml syringes:</p> <ul style="list-style-type: none"> <li>- 0.1 to 45 ml/s in increments of 0.1 ml/s</li> <li>- 0.1 to 59.9 ml/min in increments of 0.1 ml/min</li> <li>- rise/fall: 0 to 9.9 s in increments of 0.1 seconds</li> </ul> <p>Release delay for injection or radiation:</p> <ul style="list-style-type: none"> <li>- 0 to 99.9 s in increments of 0.1 s.</li> </ul> <p>Adjustable volume for 150 ml syringes:</p> <ul style="list-style-type: none"> <li>- 1 ml to the max. syringe capacity in increments of 1 ml.</li> </ul> <p>Fill rate:</p> <ul style="list-style-type: none"> <li>- Variable syringe filling speed 1-20ml/s.</li> </ul> <p>Injection protocols:</p> <ul style="list-style-type: none"> <li>- Up to 40 injection protocols possible.</li> </ul> <p>Parameters currently displayed on the touch screen display and on the head display:</p> <ul style="list-style-type: none"> <li>- Injection speed</li> <li>- Injection volume</li> <li>- Remaining volume</li> <li>- Injection duration</li> <li>- Applied pressure</li> </ul> <p>Contrast medium heating:</p> <ul style="list-style-type: none"> <li>- Nominal 35°C (95°F)±5°C (9°F)</li> </ul> <p>Injection data memory</p> <ul style="list-style-type: none"> <li>- Up to 50 injection data items stored</li> </ul> <p><b>Included in the scope of delivery</b></p> <ul style="list-style-type: none"> <li>- Injector standard configuration 150 ml</li> <li>- SIEMENS interface cable</li> <li>- Operator Manual</li> <li>- Service manual (English).</li> </ul> <p><b>Power supply</b>  200 V to 250 V; 50/60 Hz.</p>
<p><b>AXA_PR_ELV_ZEEB</b>  <b>P</b>  <b>Elevate Promo Artis</b>  <b>to zee Biplane</b></p>	<p>Existing System must be de-installed by December 31, 2013.</p>
<p><b>NT60010635</b>  <b>Blue anti-fatigue</b>  <b>floor mat for hospital</b></p>	<p><b>NT60010835 Interstate Mat Corporation Anti-fatigue Mat</b></p> <p>Industrial-grade anti-fatigue floor mat that provides comfort and durability. As a high-quality product designed to fight fatigue, it provides support for tired, aching feet, legs and back. Beveled edges for safety. Size 3'x5'.</p>
<p><b>COHRSFSIEM34Horiz</b>  <b>onSF(2DICOMconnec</b>  <b>tions)</b></p>	<p><b>CodonicsHorizonSFI</b> <b>magerisasmallformatfilm</b> <b>andpaper,colorandgrayscaleimager.M</b>  <b>ediasizesinclude:8"x10"film</b> <b>inblueandclear,andAandA4colorandgrayscalepaper.</b> <b>Sup</b>  <b>ports2DICOMconnectionsandPostScript.</b> <b>Mediaincluded:100sheetsofAsizeCVpaper(</b>  <b>withcolorribbon),80sheetsofAsizeDVpaper,and100sheetsof8x10bluefilm.</b> <b>Includesone</b>  <b>yearwarrantywith24-</b>  <b>hourswapservicethroughCodonics.</b> <b>InstallationbyCodonicsisavailableatanadditionalc</b></p>