

## PRELIMINARY PROPOSAL

### Detailed Technical Specifications

#### Artis zee floor

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p><b>System description:</b></p> <p>The Artis zee – A PURE® system with single plane is an easy-to-use X-ray angiography system for digital acquisitions and is designed to meet the requirements of state-of-the-art angiography and interventional procedures.</p> <p><b>C-arm floor-mounted stand:</b></p> <ul style="list-style-type: none"> <li>- Up to 5 preprogrammed work positions, additional 50 user-definable work positions and 3 direct positions can be stored and recalled from table side.</li> <li>- One single joystick for patient angle oriented operation of C-arm and change of source image distance (SID).</li> <li>- Integrated, computerized collision protection .</li> <li>- C-arm positioning 0° to the head end and 35° at the left side C-arm position.</li> <li>- Double oblique projections: <ul style="list-style-type: none"> <li>- LAO/RAO: <math>\pm 130^\circ</math></li> <li>- Cranial max. 55°, 52° with isocenter 12 cm above patient positioning tabletop</li> <li>- Caudal 45°</li> </ul> </li> <li>- Variable C-arm speeds up to 25°/s.</li> <li>- Variable focal spot-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><b>Patient table configuration</b></p> <p><u>Table</u></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>- Electromechanical release of table swivel at the touch of a button at the table.</li> <li>- Telescopic foot with motor-driven height adjustment.</li> <li>- Maximum patient weight: 250 kg. It is possible to install up to 40 kg of additional accessories, plus a further 100 kg for patient resuscitation.</li> </ul> <p>The table can be rotated to ensure quick access to the patient even in emergency situations.</p> <p><u>Tabletop</u></p> <p>Patient positioning tabletop made of carbon fiber in wide, straight design for universal use. The tabletop is straight all the way to the head area.</p> <p><u>Mattress</u></p> <p>Matching, special-foam mattress, 4 cm, incl. a latex-free cover.</p> <p>This visco-elastic comfort mattress reacts to temperature and has the special property of adapting to the individual body shape under the influence of body weight and heat.</p> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p><u>Application-specific accessories</u></p> <ul style="list-style-type: none"> <li>- Infusion bottle holder</li> <li>- Unilateral armrest: Carbon fiber armrest for cardiology and arm angiography to slide underneath the positioning mattress.</li> <li>- Arm holder (1 pair): Two arm holders for comfortable lateral arm positioning along the patient's body.</li> <li>- Instrument tray: Plastic instrument tray to be positioned at the patient table above the patient. It is swivable and height-adjustable, so that it can be positioned directly or sideways above the patient.</li> <li>- Hand switch for radiation release and additional control functions.</li> </ul> <p><b>Operating modes</b></p> <p><u>Fluoroscopy</u></p> <ul style="list-style-type: none"> <li>- Digital pulsed fluoroscopy with pulse frequencies of 7.5 p/s, 10 p/s, 15 p/s, and 30 p/s in 1k/12 bit matrix. Pulse rates of 0.5 - 4 p/s are also possible with CAREvision.</li> <li>- Overlay fade: On-line overlay of the reference image onto the active fluoroscopy. This improves efficiency and safety during interventional procedures because additional information which is clinically necessary can be displayed directly in the live fluoroscopy image.</li> </ul> <p><u>Digital acquisition technology</u></p> <p>Digital acquisition technology with frame rates of 0.5 to 7.5 f/s in 1k/12 bit matrix and digital real-time filtration. Single image and serial acquisitions with time-controlled and manually variable frame rate. 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><u>Digital Subtraction Angiography:</u></p> <p>Digital Subtraction Angiography with frame rates of 0.5 to 7.5 f/s, including pixel shift, remask, roadmap, peak opacification for iodine contrast (MaxOpac), and CO<sub>2</sub> contrast (MinOpac); adding of the anatomical background (landmark) from 0 to 100%.</p> <p>Includes the "Advanced Roadmap" additional function which offers the following clinical benefits:</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 changed separately</li> </ul> <p>Unexpected patient movements in DSA acquisitions can be corrected easily with Auto Pixelshift. This saves time for the user and improves image quality.</p> <p><b>CLEARmap</b></p> <p>Special 2D Roadmap operating mode creating a vessel map from a DSA-scene using Maximum Opacification technique. As an additional operating mode, you can also decide to pick one frame out of a DSA run (i.e. for venous access in Roadmap). This provides improved image quality compared to conventional Roadmap, and reduces x-ray dose and contrast media.</p> <p><b>CLEARmatch</b></p> <p>Automatic/Online pixel shift processing for most accurate subtracted image display during Roadmap and DSA based on real time movement detection and compensation.</p> <p>Six degrees of freedom – vertical, horizontal, rotational, zoom and shearing movement (left and right) - allowing highest possible efficacy. In order to show the most recent information in raw format, the pixel shift operation is applied to the mask image. This optimized way of pixel shifting ensures a perfect match of Roadmap image and</p> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p>native fluoro image, being shown at the Assist monitor.</p> <p><b>CARE package</b></p> <p><u>ALARA principle</u><br/>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><u>Dose saving</u></p> <ul style="list-style-type: none"> <li>- CAREfilter: Intelligent control software that minimizes X-ray dose. During fluoroscopy and acquisition, special copper prefilters are automatically inserted into the X-ray beam depending on current X-ray transparency, which is calculated continuously. This is necessary to ensure that the optimal prefilter value is always active. This automation makes work easier for the user because the optimal filter setting need not be adjusted manually for each case.<br/>The adaptive Cu prefiltration has five steps (0.1, 0.2, 0.3, 0.6, 0.9 mm) and is used to lower the reference air kerma and improve radiation quality by reducing the low-energy X-ray radiation.</li> <li>- CAREvision with as20 detector: Pulsed fluoroscopy with additional, reduced pulse rates of 0.5, 1, 2, 3, 4, 6 p/s. Adaptation of pulse rate to the current application requirements for significant reduction of radiation exposure, especially during interventional procedures.</li> <li>- CAREvision with as40 / as30 detector: Pulsed fluoroscopy with additional, reduced pulse rates of 0.5, 1, 2, 3, 4 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 or radiation.</li> <li>- CAREposition: Radiation-free object repositioning by means of graphic display of the X-ray center beam and image edges in the LIH image. With CAREposition it is possible to reposition the object under visual control without radiation.</li> <li>- 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>- Low dose acquisition: enables dose savings of up to 67 % during the examination. The Low Dose Acquisition protocol can be released with a separate pedal on the footswitch.</li> </ul> <p><u>Dose monitoring</u></p> <ul style="list-style-type: none"> <li>- CAREwatch: Display of the measured dose-area product and the calculated patient reference air kerma on the flat-screen display. Electronics unit with DIAMENTOR measurement chamber integrated in the collimator housing for dose acquisition.<br/>Configurable screens on the data display and imaging system monitor:<br/>During fluoroscopy: Reference air kerma rate.<br/>During fluoroscopy interval: Accumulated reference air kerma or dose-area product, or percentage of the reference air kerma limit (total from fluoroscopy and acquisition).</li> <li>- CAREguard: Monitoring the reference air kerma. If the accumulated reference air kerma exceeds one of the three configurable limits, a warning appears on the live display and tableside on the touchscreen control. This allows ideal monitoring of the accumulated reference air kerma during the examination.</li> <li>- CAREmonitor: Special model-based monitoring of the measured skin entry dose, taking into account the geometric conditions of the system (actual device angulation, table position, patient weight, patient size). It then continually displays whether the skin entry dose applied to a specific region of the patient's body exceeds a specific configurable upper limit. CAREmonitor continually calculates and displays the actual accumulated skin entry dose as a portion of this upper limit. This helps the user to detect a potential patient hazard at an early stage. The patient is therefore better protected against the damaging effects of radiation.</li> </ul> <p><u>Dose documentation</u></p> <ul style="list-style-type: none"> <li>- CAREreport: Dose information as part of the DICOM Structured Report. After each examination, the information is available in DICOM format and can be sent to a DICOM archive together with the image data, for example. Saving dose information in DICOM format also enables flexible analysis and further processing via a DICOM-capable analysis software/database.</li> </ul> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>- CARE Analytics: Standalone PC program for analyzing doses in angiography, CT, and radiological examinations. The data can be exported to statistics programs such as Microsoft Office Excel and SPSS for further analysis. CARE Analytics is available for download from the Siemens Intranet.</li> </ul> <p><b>CLEAR package</b></p> <p>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 generation</b></p> <p><u>X-ray generator</u></p> <p>Microprocessor-controlled high-frequency X-ray generator with automatic dose rate control.</p> <ul style="list-style-type: none"> <li>- Power output: 100 kW at 100 kV (IEC 60601-2-7 and IEC 60601-2-54).</li> <li>- SID tracking: Automatic tube current adaptation to focal-spot-to-detector 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 with indication in the live display.</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 ensures superior image quality and minimum radiation exposure for user and patient with every exposure release.</p> <p><b>Tube assembly MEGALIX Cat Plus 125/20/40/80</b></p> <p>3-focus high-performance X-ray tube 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>* Flat emitter focus for improved image quality</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>Flat detector as40</b></p> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p>The digital high-resolution dynamic flat detector with integrated removable grid is especially designed to fulfill the requirements of angiographic and interventional applications.</p> <p>The as40 flat detector offers 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>154 <math>\mu\text{m}</math> 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. Acquisition frame rates of up to 30 f/s are possible.</p> <p>Usable input formats:</p> <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> <p>The very compact design with integrated collision protection provides a maximum C-arm angulation range for excellent patient access.</p> <p>The flat detector is mounted on a motorized rotating turntable at the C-arm. It can be rotated by 90°, so that it 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>Digital data transfer from the detector to the imaging system is done via a high-speed Gigalink fiber-optic cable.</p> <p>Removable grid:<br/>The grid can easily be removed, saving the user time in examinations not requiring a grid. For example in pediatrics, where dose saving is especially important.</p> <p><b>Angio collimator</b><br/>Compact multileaf collimator with rectangular blade, wedge-shaped finger filters for DSA and cardiological applications and graduated filter.</p> <ul style="list-style-type: none"> <li>- Independent rotation and shift of filter blades</li> <li>- Automatic synchronous rotation of detector and collimator unit to compensate image rotation at the different examination positions of the support stand.</li> <li>- Rotation also possible via table side control enabling upright images of objects or body parts not aligned with the table e.g. arms.</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>- Electronics unit with DIAMENTOR dose measurement chamber integrated in the collimator housing, for acquisition of the dose-area product and the calculated patient entry air Kerma at the patient entrance reference point (CAREwatch).</li> </ul> <p><u>StraightView</u><br/>The flat detector and the multileaf collimator are installed on a motorized rotating turntable on the C-arm. They automatically line up with the table swivel, thus ensuring upright images of objects which are in line with the table. The flat detector and multileaf collimator can also be rotated together at any angle relative to the table, enabling upright presentation and collimation of objects which are not in line with the table.</p> <p><b>Image processing</b></p> <ul style="list-style-type: none"> <li>- Image display as positive and negative, windowing, contrast and brightness control, electronic display shutter, image shift (roaming), vertical and horizontal image inversion, magnifying glass, and zoom functions</li> </ul> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>- Storing of single images as reference images for acquisition and fluoroscopy</li> <li>- Quantification: angle and length measurements, automatic and 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, reference images, and photo file images via MULTIMAP. Access possible both in the examination and in the control room for displaying or post-processing images</li> </ul> <p><b>Imaging system</b></p> <p><u>Dual architecture</u><br/>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 best possible system performance and availability.</p> <p><u>Image storage capacity</u><br/>25,000 images in 1k/12 bit image matrix. This can be optionally extended to 50,000 / 100,000 images.</p> <p><b>Image export and networking</b></p> <p><u>DVD/CD burner</u><br/>DVD drive for automatic digital image storage in the background on DVD-/CD-ROM for off-line data exchange in DICOM format.</p> <p><u>Networking</u></p> <ul style="list-style-type: none"> <li>- Network interface (1000 BaseT) with the following integrated DICOM services:</li> <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 and/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 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><u>Note concerning DICOM interface(s)</u><br/>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).<br/>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.<br/>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>Display and display suspension</b></p> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p><u>Displays in the exam room</u><br/>Live and Assist displays are 19" TFT color and gray scale flat-screen displays with high luminance and extended viewing angle.</p> <ul style="list-style-type: none"> <li>- Screen size: 19" (48 cm)</li> <li>- Resolution: 1,280 x 1,024 (pixels)</li> <li>- Excellent brightness for the entire service life: 400 cd/m<sup>2</sup> at a contrast ratio of 1000:1</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> <p>Reference images are shown on the Assist display.<br/>Data for device and table position, dose data, and system messages are displayed in the examination and control room on both the live and the Assist display.</p> <p><u>Displays in the control room</u><br/>19" high-contrast display for live image display in the control room is included as a desktop version.</p> <p><u>Display suspension</u><br/>Ceiling-mounted, swiveling, rotating, and height-adjustable display suspension system with longitudinal travel. It features two 19" high-contrast TFT displays for live and reference image display in the examination room (Standard configuration – unless modified).</p> <p><b>Operation</b></p> <p><u>syngo</u><br/>The intuitive syngo 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><u>Footswitch</u><br/>A 4-pedal wired footswitch to release fluoroscopy, exposure, and table brake as well as a configurable additional function is included as standard.</p> <p><u>In the examination room</u><br/>For an ideal workflow, full operation capabilities for the system can be accessed directly at the patient table. These include complete system operation through modular control elements for controlling C-arm movements, the patient table, and the multileaf collimator.</p> <p>syngo-based touchscreen with multi-functional joystick for operation of the imaging system, including post-processing and quantification as well as selection of the organ programs. The touchscreen is specifically configurable to individual clinical requirements.</p> <p>This means that the user can operate the system on their own without having to leave the examination room if this is deemed necessary by the situation.</p> <p><u>In the control room</u><br/>Standard Siemens syngo control via country-specific keyboard and mouse for all imaging system functions such as image post-processing, storing, and configuring of organ programs.</p> <p><b>Customer Care – the customer care solution from Siemens Healthcare</b><br/>From the moment you purchase your Siemens system you will benefit from many services that are offered by "Customer Care"*. These include:</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> </ul> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>- Arrangements for clinical training via a global network</li> <li>- Free trial licenses</li> </ul> <p>You will find information on our e-learning program and further details on general "Customer Care" services on the Internet.</p> <p>* The availability of "Customer Care" services may be restricted for some systems.</p> <p><b>User Training</b><br/> Siemens recognizes the significant investment you are making in purchasing a new imaging system and are determined that you are able to realize the full capability of this new system. Siemens clinical applications training ensures you have every opportunity to fully utilize your new system.</p> <p>Content of user training: Handover Training and Follow-up Training</p> <ul style="list-style-type: none"> <li>- Introduction to the functions, options, and handling of the Angiography system</li> <li>- Instruction on the use of the Angiography system together with modern, highly-developed applications</li> </ul> <p>Delivery &amp; duration of the user training varies and may be country specific so for additional information please contact your local Siemens representative.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                    | <ul style="list-style-type: none"> <li>- <math>\pm 15^\circ</math> head up/head down positioning.</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 table button.</li> <li>- Max. patient weight 200 kg. It is possible to install up to 40 kg of additional accessories.</li> </ul> <p>Excellent image quality from the abdomen to the feet is due to the fact that adjustable parameters such as acquisition frame rate, 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 image quality with best possible contrast is achieved.</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><br/> Peripheral digital stepping angiography with only a single contrast medium injection under visual control of the bolus flow.<br/> Gantry stepping with zeego and 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 setting for each step.</li> </ul> <p><b>PERIVISION:</b><br/> 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> </ul> <p>Automatic storage of the collimator setting for each step</p> <p>-</p> |
|                    | <p>Angle-triggered digital rotation angiography enables dynamic image display with 3D effect. Dynamic subtraction with optimum alignment of masking and filling, and automatic pixel shift in the entire scene.</p> <ul style="list-style-type: none"> <li>- Rotation speed is 60°/s (Artis zeego and Artis ceiling) and 45°/s (Artis floor and Artis biplane).</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</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p>spatial resolution can be selected,</p> <ul style="list-style-type: none"> <li>- Angle triggering allows a reduction in dose through a reduced acquisition frame rate while at the same time achieving better image quality.</li> </ul> <p>Includes DYNAVISON DR for native rotation angiography and DYNAVISON DSA for subtracted rotation angiography. Reconstruction at the <i>syngo</i> X Workplace is not possible with this operating mode.</p> <p>Note: For biplane systems rotation angiography is available in plane A only.</p>                                                                                                                                                                                                                                                                                                                                   |
|                    | <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 Vessel 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.</p> <p>Especially to be used for vessel sizes between 0.5 mm and 50 mm.</p>                        |
|                    | <p>Automap optimizes the procedure workflow, especially during interventions. 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. On the other hand, the system is able to select a reference image for the current device position. In case of changes in device position, this enables the user to see the corresponding reference images quickly and safely.</p>                                                                                                                                                                                                                                                                                  |
|                    | <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 working, standby and park position.</li> <li>- Orthogonal system control, along patient longitudinal axis.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                    | <p><b>Note concerning DICOM interface(s)</b><br/>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.<br/>With regard to expenses for interface configurations that might be required, the agreements on maintenance/service of the product apply.</p> |
|                    | <p>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.<br/>It consists of the following shielding units:</p> <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> </ul>                                                                                                                                                                                                                                                                                                  |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <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> <p>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.<br/>The maximum load of the accessory rails is 40 kg, the weight of the attached scattered radiation protection is 8 kg.</p>                                                                                                                                                                                                                                                                                                                                                          |
|                    | <p>Radiation protection attached via a ceiling-mounted, mobile stand for protection against scattered radiation; incl. 4 m ceiling rail.</p> <ul style="list-style-type: none"> <li>- Swivable and rotatable around the fixed 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), with recess for interventional examinations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                |
|                    | <p>Mach LED 130F examination light with focusable light system. Can also be installed on the Portegra2 ceiling support of the portable radiation protection panel.<br/>It is therefore fully integrated into the ceiling-installed radiation protection system of the Artis Zee/Q/Zen family.</p> <ul style="list-style-type: none"> <li>- Luminance: 60,000 Lux for 100 cm distance</li> <li>- Working distance: 70 to 140cm</li> <li>- Color rendering index Ra: 95</li> <li>- Color temperature: 4,300 Kelvin</li> <li>- Focusable spot size: 14 to 25cm</li> <li>- Diameter of light head: 33cm</li> <li>- Number of LEDs: 19</li> <li>- Total input power: 20 VA</li> <li>- Max. reach of the spring arm combination: 185 cm</li> <li>- Total weight of light head with grip sleeve: 2,4kg</li> </ul> <p>Lamp power connection 230V or 115V possible</p> |
|                    | <p>Communication / Intercom system for communication between examination room and control room, with additional footswitch for conversation selection in the examination room.<br/>Microphone and control box on the console in the control room.<br/>With adaptive acoustic filter for background noise suppression in the examination room.<br/>Microphone in the examination room installed on the ceiling.</p> <p><i>Ordering information that can be deleted from the final version of the offer follows:<br/>Intercom - Comfort replaces the old intercom system (without adaptive acoustic filter for background noise suppression).<br/>Delivered as an option only, not included in the basic configuration</i></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>syngo X Workplace</b></p> <p>The syngo X Workplace is a dedicated workstation for image postprocessing. Its functionality 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p><b>syngo X Workplace PC</b><br/> The high-performance 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 1000/100/10 Mbit Ethernet.</p> <p><b>Examination room: 19" color flat display or Artis Large Display connection kit</b><br/> With this configuration, if an Artis Large Display is ordered - the configuration includes a connection kit for the Artis Large Display. If an Artis Large Display was not ordered - a display is delivered additionally for the examination room...</p> <p><b>Control room: 19" color flat display or Artis Cockpit connection kit</b><br/> In this configuration, there is also one display for the control room or one connection kit for an Artis Cockpit.</p> <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 color display</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) screen size</li> <li>- Resolution: 1,280 x 1,024 (pixels)</li> <li>- Excellent 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> <p><b>syngo X Workplace Basic User Software</b><br/> 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 includes the following software licenses</b><br/> 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 and importing image data from CDs/DVDs.</li> <li>- Module for writing DICOM CDs/DVDs for data exchange. Writing is in background mode.</li> </ul> <p>Filming:<br/> 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>Viewer:</p> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p>The Viewer 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:</p> <p>Microsoft Office Word, Excel, PowerPoint plus Outlook are supported (not provided!).</p> <ul style="list-style-type: none"> <li>- Any user-selectable file, such as cardiac or angiographic acquisitions, DSA or 3D AVI video sequences, can be burned to CD, or exported to USB stick, 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><u>3D image generation</u></b></p> <p><b>3D rotational angiography</b></p> <p>In 3D rotational angiography, a sequence of 2D projection images is acquired by a C-arm performing a fast rotation around the isocenter in which the patient is positioned.<br/>Image data are transferred automatically to a <i>syngo</i> X Workplace for time-optimized 3D image data reconstruction.</p> <ul style="list-style-type: none"> <li>- All parameters required for the 3D reconstruction are included in the organ program. This enables optimized image quality and easy handling, as well as the fastest possible 3D reconstruction.</li> <li>- Rotation speed is up to 88°/s (Artis zeego with <i>syngo</i> Dyna3D HighSpeed), 60°/s (Artis ceiling), and 45°/s (Artis floor and Artis 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. In addition, it allows for accurate subtracted rotational scans.</li> </ul> <p>3D reconstruction and visualization of a volume are performed in real time in volume rendering technique, MPR, and MIP. 3D Rotational angiography is used in particular as support in interventional radiology and neuroradiology in the angiography laboratory. Based on dedicated acceleration hardware the primary reconstruction results are available in full diagnostic quality in the examination room within 19 seconds for high contrast images. Subsequent secondary reconstructions are available even faster.</p> <p>Note: For biplane systems rotation angiography is available in plane A only.</p> <p><b><u>3D Image Manipulation</u></b></p> <p>The 3D XWP comes with applications that facilitate 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>In angiography, surgery, and cardiology, the three-dimensional information is used for diagnosis, planning of therapy and documentation.</p> <p>Diagnosis and treatment can be performed in one session. This offers a significant advantage thanks to the fully-integrated workflow, for example the</p> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>- Transfer of the projection angle (that has been adjusted by the user in the XWP 3D volume) to the C-arm stand.</li> <li>- Realtime synchronization between reconstructed volume and C arm position (Volume following the C arm position)</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> <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> <li>- Link between C arm geometry and reconstructed volume: driving the C arm to exact projection position according to the view of the reconstructed volume and/or setting the volume to follow realtime C arm positions</li> </ul> <p>Image data:</p> <ul style="list-style-type: none"> <li>- Viewing of volume data from AX, CT, MR, and PET modalities.</li> <li>- Loading of two volume data sets simultaneously.</li> <li>- Multiple Layouts: single (1on1), double (2 on1) and quadruple (4on1) for MPR display.</li> <li>- Two displays can be 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> <li>- Sending of parallel ranges results to PACS</li> </ul> <p><b>3D accessories</b><br/>Includes the accessories required for 3D setup and calibration :</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> |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p><b>Dual volume visualization</b><br/>           Enables the differentiation between two high-contrast 3D objects that have virtually the same contrast density by choosing different visualization presets for the two simultaneously loaded volumes. This enables clear differentiation between e.g. contrast-filled vessels, bones, stents, clips or coils.<br/>           Furthermore, it allows the display of one low-contrast and one high-contrast volume in one view, often realized as embedded MPR where the high-contrast volume is visualized in VRT and the soft-tissue information is shown as MPR slice. This can be used e.g. for visualization of anatomical structure such as tumors in relation to the feeding vessels</p> <p><b>Common functions</b></p> <p><b>Inroom control functionality</b><br/>           Allows for remote control of the <i>syngo</i> X-Workplace from the examination room via touchscreen and joystick mounted table-side or on a trolley.<br/>           For this, a set of functions is offered inroom for e.g. 3D image assessment and manipulation, 3D navigation, multimodality image integration, or for actively following the steps of a pre-defined workflow.</p> <p><b><i>syngo</i> Expert-i</b><br/> <i>syngo</i> Expert-i enables the physician to interact with the <i>syngo</i> X -Workplace from virtually anywhere.<br/>           When clinical questions arise at the <i>syngo</i> X-Workplace, a second user with a Windows PC can quickly and efficiently access the <i>syngo</i> X-Workplace via the network. He or she can assume full control of every application on the <i>syngo</i> X-Workplace and can see all screen content 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.</p> <p><b>DICOM</b><br/>           Industrial standard for the transmission of information between DICOM-compatible units 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><br/>           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><i>syngo</i> DynaCT is especially suited to support radiologists and neuro-radiologists during interventional procedures in the angiography suite with both endovascular and non-endovascular procedures. <i>syngo</i> DynaCT provides enhanced decision making during oncology procedures such as chemoembolization and RF-ablations. In neuroradiology, <i>syngo</i> DynaCT allows the visualization of bleeds, the ventricular system of the brain and microstent placement.</p> <p>With <i>syngo</i> 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). 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p>For syngo DynaCT 360 applications in the abdomen or thorax in conjunction with an Artis zeego system, the larger field of view (FOV 35 cm x 25 cm, 13.8" x 9.8") allows complete visualization of tumors, their feeding vessels and the surrounding tissue, e.g. in chemoembolizations. The larger FOV also optimally supports vascular treatments in the abdomen such as the placement of stent prostheses. The short acquisition time makes it easier for patients, especially those that are critically ill, to hold their breath during the acquisition.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                    | <p>syngo Toolbox</p> <p>Any change of the angulations of the C-arm or any change of the table position will cause the workstation to recalculate in real time the projection of the 3D markings to exactly match the current view of the live 2D X-ray image. This function can be used to guide the operator with his or her instruments to a target structure as the markings in the 3D image can serve as a surgical plan that is displayed during the procedure in the X-ray image.</p> <p><i>syngo 2D/3D Fusion</i></p> <p>While <i>syngo 3D/3D Fusion</i> requires a <i>syngo DynaCT</i> or <i>syngo Dyna3D</i> image to overlay a pre-operative CT on the live X-ray image, <i>syngo 2D/3D Fusion</i> requires only two 2D projections from different angles for such overlay. Simultaneous alignment in two views ensures overall alignment of the 3D volume and fluoro at all angulations.</p> <p><i>syngo 3D/3D Fusion</i></p> <p>Besides an improved diagnostic workflow, syngo 3D/3D Fusion becomes particularly powerful in conjunction with syngo 3D Roadmap and syngo Toolbox. For example, a fused CT, MR or PET image can be overlaid with live fluoroscopy in combination with syngo 3D Roadmap. If anatomical structures have been marked in the CT, MR or PET image using syngo Toolbox,</p> |
|                    | <p>syngo Needle Guidance workflow provides a guided intuitive 3 step approach, for consistent needle positioning results:</p> <p>Step 1:<br/>Definition and check of the needle path on a DynaCT or an external CT or MR or PET-CT dataset.</p> <p>Step 2:<br/>Check of automatically proposed progression views that will be used for monitoring the needle procedure.</p> <p>Step 3:<br/>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 in all three dimensions.</p> <p>Subsequently, a control scan can be performed and automatically fused with the planning volume using fusion functionality. syngo DynaCT, CT, PET or MR images are accepted for the image fusion.</p>                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                    | <p>The <i>syngo Angio Viewer</i> enables dynamic review of DSA scenes (in native or subtracted display) and their postprocessing at the <i>syngo Workplace</i>, with functions such as:</p> <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <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><b>Display mount</b></p> <p>Preparation for the large display. The large display area allows for both large display and the free positioning of examination-relevant video signals.<br/>The fully integrated tableside control allows for selection from among twelve layout variants.</p> <p>For the diagnostic color display in TFT technology, with high luminance and extended viewing angle, the gamma curve has been adapted particularly for gray scale display according to the CIE / DICOM recommendation.</p> <p>Video signals such as live, assist and reference images, <i>syngo</i> X Workplace, Sensis/recording systems, PACS, HIS/RIS, ultrasound, ECG, external video, endoscope, mapping systems, system and table position, system messages and dose information can be individually positioned and displayed on the Large Display, if connected.</p> <p>The extended Roadmap function is included, if DSA is available:</p> <ul style="list-style-type: none"> <li>- Native live fluoro image during fluoroscopy; otherwise Last Image Hold.</li> <li>- Native live fluoro image during roadmap / subtracted fluoroscopy; otherwise Last Image Hold.</li> <li>- Native live acquisition during DSA acquisition; otherwise native max-fill image.</li> </ul> <p>If the dual reference function is available, parallel static reference images are displayed on both reference monitors.</p> <p>Technical specification for the 60" display:</p> <ul style="list-style-type: none"> <li>- Display size (W x H) 60 ", 133 cm x 74.8 cm .</li> <li>- Screen size 60 ", 153 cm</li> <li>- Resolution: 3840 x 2160 (pixels); 8 megapixels at 4 x HD.</li> <li>- Color depth 16.7 10<sup>6</sup> colors.</li> <li>- excellent brightness over the lifetime: 300 cd/m<sup>2</sup> at a contrast ratio of 4000:1.</li> <li>- Flicker-free and distortion-free image display.</li> </ul> <p>Technical specification for the 55" display:</p> <ul style="list-style-type: none"> <li>- Display size (W x H) 55 ", 121 cm x 68 cm .</li> <li>- Screen size 55 ", 139 cm</li> <li>- Resolution: 3840 x 2160 (pixels); 8 megapixels at 4 x HD.</li> <li>- Color depth 1.07 10<sup>9</sup> colors.</li> <li>- excellent brightness over the lifetime: 350 cd/m<sup>2</sup> at a contrast ratio of 1450:1.</li> <li>- Flicker-free and distortion-free image display.</li> </ul> <p>Technical specification for the 56" display:</p> <ul style="list-style-type: none"> <li>- Display size (W x H) at 56", 124.4 cm x 70 cm</li> <li>- Screen size at 56", (142.2 cm)</li> <li>- Resolution: 3840 x 2160 (pixels); 8 megapixels at 4 x HD.</li> </ul> |



## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>- Color depth 16.7 10<sup>6</sup> colors.</li> <li>- excellent brightness over the lifetime: 300 cd/m<sup>2</sup> at a contrast ratio of 800:1.</li> <li>- Flicker-free and distortion-free image display.</li> </ul> <p><b>Bypass concept</b><br/>In case of error, such as controller failure, the Large Display switches automatically to bypass mode and emergency fluoroscopy is displayed on the Large Display.</p> <p><b>Backup concept</b><br/>The Large Display has a backup concept to ensure against power supply failure (2 separate power supplies for the left and right sides of the Large Display).</p> <p><b>Display mount</b><br/>The longitudinally mobile, swiveling, rotating, and height adjustable display holder with normal working range contains a large color flat display. All cables are integrated.</p> <p>Technical data for the display holder:</p> <ul style="list-style-type: none"> <li>- Longitudinal travel range 217.5 cm with 300 cm rails.</li> <li>- Longitudinal travel range 337.5 cm with 425 cm rails.</li> <li>- Height adjustment range 85 cm.</li> <li>- Swivel range (max. system rotation) 300 degrees.</li> <li>- Display swivel range 330 degrees.</li> </ul> <p>Note: <i>The type of large display can be chosen with a separate position.</i></p> |
|                    | <p>The Large Display video controller 18 receives various internal and external video signals for presentation to scale on the Large Display.<br/>Up to 18 external and internal video sources can be connected (max. 14 DVI-D and 4 analog (VGA) channels).</p> <p>Important images for diagnostic purposes can be displayed to scale in their original size on the Large Display. Less important, non-diagnostic information can be displayed at a reduced size by the interpolation algorithm for image information integrated in the video controller.</p> <p>An enlarged or reduced display can be selected individually via the display configurations at the fully integrated tableside control. The video controller then takes over interpolation and adaptation of image size.</p> <p>In waveform images with high resolution, such as for electrophysiological recording systems, the curves are displayed free of artifacts because of a special interpolation algorithm.</p>                                                                                                                                                                                                                                                                                                                                                       |
|                    | <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> <p>Various video sources such as syngo Workplace, an integrated ultrasound system, and patient monitoring, can be configured for presentation on the InRoom Display.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                    | <p>Rail profile (short table attachment) for table operation</p> <ul style="list-style-type: none"> <li>- Weight: 1.4 kg</li> <li>- Rail length: 12 cm</li> <li>- Width: 20 cm</li> <li>- Height: 14.5 cm</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## PRELIMINARY PROPOSAL

| Part No. / Product | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <p>Rail profile (long table attachment) for device operation (with or without table operation)</p> <ul style="list-style-type: none"> <li>- Weight: 2.8 kg</li> <li>- Rail length: 25 cm</li> <li>- Width: 20 cm</li> <li>- Height: 14.5 cm</li> </ul> <p>This UPS is recommended when protection and uninterruptible power is required for the C-arm and table. Emergency fluoroscopy is not available with this UPS. If emergency fluoroscopy is required, the 9390 - 160 kVA UPS is recommended for the full system. One UPS per lab.</p> <p><b>Operation:</b></p> <ul style="list-style-type: none"> <li>- Since this UPS is working completely uninterrupted, a power failure is observed when no radiation is available and the display shows "No X-ray please wait".</li> <li>- The Emergency power lamp (red) will light on the power display during a power failure. All stand movements are possible and the image system functions are protected against data loss. Guaranteed back up time: 10 min.</li> <li>- Restoring of hospital's main power supply is indicated when the generator boots again (also green Hospital power lamp lights). Full exposures are available after apx. 75 seconds.</li> </ul> <p>Includes UPS, battery, maintenance bypass panel, and one year on-site parts and labor coverage (24x7) by Eaton Powerware.</p> <p>Additional seismic brackets are required to make this system OSHPD approved.</p> |