** **NNAE379 Allura Xper FD20/10 Rel. 7.6 1
Cardiac

The Allura Xper FD20/10 biplane cardiovascular system is comprised of a floor mounted C-arm stand, a ceiling mounted lateral ARC and digital imaging X-ray system for cardiovascular diagnostic and interventional procedures.

The Allura Xper FD20/10 system is an integrated single-host concept. The system comprises five functional building blocks: Geometry, X-ray Generation, User Interface, Image Detection, and Viewing. Each functional building block is explained in further detail.

**GEOMETRY**

**The Allura Xper Frontal Stand**

The Allura stand consists of a floor mounted C-arm. The stand has the following capability:

- The L-arm can be rotated allowing a three-sided patient approach.
  - L-arm rotation around the patient table: +90, 0, -90 degrees.
  - L-arm rotation movement: motorized and manual
- The Allura stand allows a very wide range of projections, including PA and AP imaging.
  - In the head position (0 degrees position, L-arm parallel to patient table):
    - C-arm rotation range (degrees): 120 LAO to 185 RAO
    - C-arm angulation range (degrees): 90 CA to 90 CR
    - (Full angulation capability determined by patient position)
  - In the side position (+90 / -90 degrees position, L-arm perpendicular to patient table):
    - C-arm rotation range (degrees): 90 LAO to 90 RAO
    - C-arm angulation range (degrees): 185 CA to 120 CR or 120 CA to 185 CR
    - (Full angulation capability determined by patient position)
- The stand provides fully motorized fast movements with variable and configurable maximum speed.
  - Variable C-arm rotation speed, up to: 25 degrees per second
  - Variable C-arm angulation speed, up to: 18 degrees per second
- L-arm rotation motorized and manual
- C-arm depth is 90 cm
- The FD20 Dynamic Flat Detector features Xper Access which allows the flat detector to be positioned in either portrait or landscape imaging modes in 3 seconds.
- The variable source image distance between focus and Dynamic Flat Detector input screen is motorized from 89.5 to 119.5 cm.
- The stand features BodyGuard a capacitive sensing collision avoidance system for patient protection.

**The Allura Xper Lateral Stand**

The lateral stand consists of a double C-arm mounted to a ceiling suspended carriage.
The X-ray tube and the Flat Detector are integrated into the C-arm. The double C-arm concept enables mutual independent rotation and angulation movements. The Dynamic Flat Detector on the lateral stand is mounted at the left side of the patient providing optimal positioning for cardiac applications.

Ceiling carriage longitudinal movement: 315 cm

The lateral stand projection ranges:

- Rotation range (degrees): 0 LAO (frontal) to 90 LAO (lateral)
- Angulation range (degrees): 45 CA to 45 CR

The stand provides fully motorized movements. The rotation movement can be controlled separately or synchronously with the frontal stand. The Flat Detector is counterbalanced and can be moved motorized and manually.

- Rotation speed: 8 degrees / s, fixed
- Combined rotation speed (frontal / lateral): 8 degrees / s, fixed
- Angulation speed: 8 degrees / s, fixed
- Flat detector movement: motorized and manual
- Ceiling carriage longitudinal movement: motorized and manual
- Motorized fine adjustment when the lateral stand is in the biplane application area.
- During combined rotation, the BodyGuard detection system of the frontal stand controls the rotation speed of the frontal and the lateral stand.

Patient support

The Xper Table
Patient support with flat carbon fiber tabletop

- Table top length of 319 cm, width 50 cm
- Metal-free overhang 125 cm
- Floating table-top movement of 120 cm longitudinal and 35 cm transversal range.
- Motorized height adjustment from 79 to 107 cm
- Maximum cantilever of 223 cm, for full patient coverage
- Maximum patient weight 250 kg with 25 kg of accessories plus 500 N for CPR in any longitudinal position of the table top
- Xper Geometry and Imaging Modules for exam room controls.
  - The operating modules can be attached to either side of the table.

Patient Support Accessories set

- One cerebral filter
- Three rail accessory clamps
- One IV stand
- One slow recovery foam mattress
- One Set of Arm Supports (FCV0248)
- One Set of Patient Straps (FCV0250)
X-RAY GENERATION

The Allura Xper FD20/10 utilizes a microprocessor controlled high frequency 100 kW generator. The user interface control of this X-ray Generator is incorporated in the Xper module, Xper Desktop Console, and the Xper on-screen displays.

For each plane, the Velara CFD generator comprises:

- X-ray generator 100 kW
- Voltage range is 40 - 125 kV
- Maximum current 1250 mA at 80 kV
- Program selection
- Pulsed X-ray for pulsed fluoroscopy; 3.75, 7.5, 15 and 30 frames/s in single plane and biplane modes.
- Pulsed X-ray for (subtracted) acquisition up to 6 frames per second for vascular applications in both single plane and biplane modes.
- Minimum exposure time of 1 ms.
- Automatic kV and mA control for optimal image quality established prior to run to save dose.
- Each plane has an X-ray depth collimator with two semi-transparent wedged filters with manual and automatic positioning and includes:
  - SpectraBeam filtering Filters low energy radiation to optimize image quality and dose efficiency with MRC-GS X-ray tubes.
  - Xper Beam Shaping, positioning of both shutters and wedges on the Last image Hold without the need for X-ray radiation.

Fluoroscopy

- Three programmable fluoroscopy modes
  - Each mode can be set to different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, and adaptive harmonization).
- Roadmap Pro (Formerly Trace Subtract Fluoroscopy)
  - A Roadmap Pro run is a vessel map an acquisition superimposed on live fluoroscopy
  - Acquisitions can be performed without losing the vessel map
  - Roadmap Pro features Smart Settings in special clinical modes that are optimized to visualize special materials such as coil and glue.
  - Automatic Motion Compensation (AMC) part of the roadmapping functionality. During roadmapping, small patient movements can lead to subtraction artifacts. These artifacts might conceal important clinical information. Automatic Motion Compensation compensates for rigid, uniform (skeletal/table) translations and is therefore very effective in interventional applications where subtraction imaging is used.
  - **Disclaimer:** AMC only corrects movement artifacts in two dimensions. Three dimensional movements such as swallowing or rotation of the head cannot be corrected.
  - Xres for vascular is a standard feature of Roadmap Pro
100216 ALLURA XPER FD20 BIPLANE

### IMAGE DETECTION

#### Frontal imaging chain:
- A 30 cm by 40 cm FD20 Dynamic Flat Detector subsystem for fluoroscopy and fluorography procedures
- 8 imaging modes are available: 30 x 38, 30 x 30, 26 x 26, 22 x 22, 19 x 19, 16 x 16, 13.5 x 13.5, and 11 x 11 cm
- The flat detector subsystem features Xper Access, the detector can be rotated over 90 degrees, it moves from portrait to landscape back and forth
- The digital output of the FD20 flat detector is a 2k x 2.5k image matrix at 14 bits depth for the largest mode
- DQE (Detective Quantum Efficiency) >73
- The pixel pitch is 154 x 154 microns

#### Lateral imaging chain:
- A 25 cm (10 in.) diagonal triple mode Dynamic Flat Detector subsystem for fluoroscopy and fluorography procedures
- 3 imaging modes are available: 18 x 18, 14 x 14, 11 x 11 cm
- The digital output of the FD10 flat detector is 1k x 1k image matrix at 14 bits depth
- DQE (Detective Quantum Efficiency) is 75 %
- The pixel pitch is 184 x 184 microns

### VIEWING

The Allura Xper FD20/10 comprises the following components in order to display the clinical images in the control and examination rooms.

#### Displays
- Four 18-inch monochrome LCD monitors designed for medical applications. There are two live display monitors, one per plane and two reference monitors, one per plane.
  - 18-inch monochrome TFT-LCD display
  - Native format 1280x1024 SXGA
  - 10-bit gray-scale resolution with gray-scale correction

These monitors are not delivered when FlexVision XL, EP Cockpit or EP Cockpit XL is selected.

The monitor ceiling suspension in the exam room can be configured to accommodate 4 or 6, 18-inch LCD monitors and includes motorized height adjustment. The height-adjust feature is...
dependent on the room ceiling height. When FlexVision XL, EP Cockpit or EP Cockpit XL is selected the monitor ceiling suspension is configured for one of those options.

• The first reference channel is for the display of reference images or runs, controlled by infrared remote-control Xper Viewpad.
• The On-Screen Display provides status information on stand rotation, angulation, display of system messages, X-ray tube load status, selected fluoroscopy mode, selected detector Field of View, and both the rate and accumulation of the dose area product and skin dose.

**Control Room**
One 19-inch color LCD monitor used as a data monitor.
• 19-inch color TFT-LCD display
• Native format 1280x1024 SXGA

Two 18-inch monochrome LCD monitor designed for medical applications.
• 18-inch monochrome TFT-LCD display
• Native format 1280x1024 SXGA
• 10-bit gray-scale resolution with gray-scale correction

These control room monitors are not delivered when EP Cockpit or EP Cockpit XL is selected. The Graphical User Interface on the monochrome monitor has the following features and functions:

• Step through file, run, or images
• File, and run overview
• Contrast, brightness, and edge enhancement settings
• Flagging of runs or images for transfer
• Applying text annotation in images
• Optional DICOM printing
• Executing Quantitative Analysis Packages if available
• Subtraction functionality
• Zoom/pan functionality
• Electronic shutters
• Video invert
• View trace, stacking of images
• Landmarking

**Acquisition**
The acquisition segment coordinates the parameters for automatic exposure control. The program is selected via the Xper module or Xper Desktop Console.

Exposure techniques:
• Serial imaging for DA and DSA with automatic exposure setting
• Single shot mode

This Allura offers a storage capacity of:
• 50,000 images per plane at matrix size of 1024 x 1024, 10 bit
• Maximum number of examinations is 999, with no limit to the maximum number of images per examination
Biplane Cardiac Imaging (NCVB613)
Biplane Cardiac Imaging comprises of Xres Cardio Biplane and Frame Rate Extension Biplane.

Xres Cardio Biplane

• Xres Cardio Biplane enhances sharpness, contrast, and reduces noise in fluoroscopy and exposure runs for cardiac studies

Frame Rate Extension

• Frame Rate Extension Biplane increases the system acquisition speed for vascular and cardio-vascular studies requiring high acquisition rates.
  • Frame rate extension increases the acquisition frame rate to 15 fps and 30 fps with 1024 x 1024 matrix

USER INTERFACE
Xper is comprised of three elements: 1) Xper Settings, to customize the system to each user's preferred settings, 2) Xper User Interface, and, 3) Xper Integration, making advanced integration functionality available, such as DICOM Query / Retrieve, background archiving, and Xper Fluoro Storage.

The Xper User Interface comprises a range of User Interface modules in the Examination Room, including On-Screen Display.

On-Screen Display

The On-Screen Display is positioned on the left side of each reference monitor.

The following system information is displayed:

• X-ray indicator
• X-ray tube temperature condition
• Gantry position in rotation and angulation
• Source Image Distance
• Detector field size display
• General System messages (frontal reference monitor only)
• Selected Frame speed (frontal reference monitor only)
• Fluoroscopy mode (frontal reference monitor only)
• Integrated fluoroscopy time (frontal reference monitor only)
• Skin Dose: dose rate at X-ray, cumulated dose at no X-ray (frontal reference monitor only)
• Dose Area Product: dose rate at X-ray, cumulated dose at no X-ray (frontal reference monitor only)
• Graphical bars for Body Zone specific dose-rate and accumulated skin dose levels, related to the 2 Gy level (cardiac applications only)
• Stopwatch (frontal reference monitor only)

The Xper ViewPad contains the preprogrammed function settings. The system is provided with two Xper Viewpads. The following functions are provided:

• Run and image selection
• File and run cycle
• File overview
• Store to Reference image file
• Copy image to photo file
• Digital (fixed)zoom and panning
• Recall reference images
• Laser pointer, intended to point at regions of interest on the imaging monitors
  • LED indication of laser pointer on/off and battery low
• Subtraction on/off
• Remasking
• Landmarking

Remote Intercom (NCVA082)

The separate intercom which is connected independently from the system that allows separate placement of the intercom at the preferred working position in the control room and examination room.

Table Side Modules
Two Xper Modules are provided for use. The first Xper Module is mounted tables side. The Second Xper Module (NCVA778) is located in the control room. These modules use a touch screen, which can be operated when draped with sterile covers. The Xper Module contains the following functionality:
  • Acquisition settings
  • Selection of Xper Setting allows the user to set frame rates and x-ray generation settings applicable for the type of the preferred intervention
  • Automatic positioning recall to allow the stand position to match the reference image.
  • Image Processing

The Xper Biplane Geometry T.S.O. module can be positioned at three sides of the patient table, while keeping the button operation intuitive. The Xper Geometry T.S.O. provides the following functionality:
  • Tabletop float
  • Table height position
  • Source Image Distance selection per plane
  • Gantry positioning per plane
  • Biplane rotation of the two gantries
  • Frontal gantry rotation in an axis perpendicular to the floor and longitudinal movement of the lateral gantry
  • Store and recall of two scratch gantry positions including SID
  • Emergency stop button
  • Geometry reset button, which resets stand and table to a factory-default starting position

The Xper Biplane Imaging T.S.O. module can also be positioned at three sides of the patient table, while keeping the button operation intuitive. The Xper Imaging T.S.O. provides the following functionality:
  • Fluoroscopy Flavor selection defined per Xper Setting
  • Shutters and Wedge positioning
  • Manual or automatic semi-transparent wedge filter
Pan Handle (NCVA081)
The Pan Handle is an extension of the control facility for floating movements of the table

Control Room
The control room comprises a Xper Review Module, Xper Viewing Console, a keyboard, and a mouse. The Xper Review Module offers the basic functions for review. The Xper Review Module contains the following functionality:

- Power on/off
- Tagarno wheel to control the review of a patient file
- File and run cycle
- Contrast,Brightness, and Edge enhancement settings
- File, Run, Image stepping and run and file overview
- Delete run
- Image invert and digital zoom
- Reset fluoroscopy timer and enable/disable X-ray

System information is displayed on the bottom of the data Monitor:

- Stopwatch and Time
- System guidance information
- Dose Area Product (DAP) and Skin Dose, as dose rate during X-ray, and accumulative dose
- Frame speed settings, fluoroscopy mode, and accumulated fluoroscopy time
- Exposure and fluoroscopy settings per plane, like Voltage (kV), Current (mA) and time (ms)
- Geometry information per plane, like rotation, angulation, and SID

Vascular Quantification Software Package (NCVA786)

- Vessel diameter / stenotic index
- Automated vessel analysis
- Calibration routines

The workflow is divided into scheduling, preparation, acquisition, review, and archive.

Scheduling
The patients can be added, listed and selected per date, physician, or intervention type. Previous DICOM patient studies can be uploaded with the DICOM Query Retrieve function.

Patient management protocols are flexible and allow for multiple studies to be selected under one patient identification number. This means that new studies can be appended to an earlier patient file. Each study can contain multiple examinations to allow for split administrative purposes. Each examination contains multiple files, like acquisition file, reference file, and QA results file.
Preparation
The preparation page provides the information of the room and patient preparation of each individual physician. The preparation page is customizable per Xper Setting and allows each physician to provide his or her own room protocols.

Acquisition
The acquisition page contains information on the current selected patient.

Review
The review page allows for reviewing of patients:
- Previous examination cases
- Review of other DICOM XA or DICOM SC studies

Archive
Biplane Continuous Autopush (NCVA587)

Continuous Autopush is an archive accelerator, which ensures that background archiving continues with minimal disruptions.

Clinical studies can be archived to a CD or a PACS. The archive process can be completely automated and customized with Xper Settings. Parameters like multiple destinations; archive formats can be selected to the individual needs.

The Xper DICOM Image Interface enables the export of clinical images to PACS. The export formats are based on DICOM 3.0 protocols. The system exports clinical studies in Cardiac DICOM XA Multi-Frame or DICOM Secondary Capture formats.
- The export format is configurable in 512x512, 1024x1024 or 2048 x 2048 (unprocessed) matrix.
- The examination can be sent to multiple destinations for archiving and reviewing purposes.
- The Xper DICOM Image Interface provides DICOM Storage and DICOM Storage Commitment Services.
- The DICOM Query/Retrieve function allows older DICOM XA MF and DICOM SC studies to be uploaded in the system. Furthermore, additional information can be appended to a study, while keeping the patient identification the same.

Real Time Digital Link
The Allura Xper FD20/10 includes Real Time Digital Link which enables real time image transfer to the optional Interventional Hardware.

Clinical Education Program for the Allura Xper System

Essentials OffSite Education:
Philips will provide up to two (2) Cardiovascular Technologists, Registered Technologists Registered Nurses, or other system operator as selected by customer, with in-depth didactic, tutorial, and hands-on training covering basic functionality and work-flow of the cardiovascular imaging system. In order to provide trainees with the ability to apply all fundamental functioning on their system, and to achieve maximum effectiveness, this class should be attended no earlier than two weeks prior to system installation.

In the event that an EP Navigator workstation has also been ordered, the offsite training course will be tailored to focus on the electrophysiology functionality of the FD system and the EPN workstation.

In the event that your main FD system will be dedicated to Cardiac applications your offsite training course will be tailored to focus on the Cardiac functionality.
This twenty-eight (28) hour class is located in Cleveland, Ohio, and is scheduled based on your equipment configuration and availability. Due to program updates, the number of class hours is subject to change without notice. Customer will be notified of current, total class hours at the time of registration. This class is a prerequisite to your equipment handover OnSite Education. CEU credits may be available for each participant that meets the guidelines provided by Philips. Please refer to guidelines for more information. Travel and lodging are not included, but may be purchased through Philips. It is highly recommended that 989801292102 (CV Full Travel Pkg OffSite) is purchased with all OffSite courses.

**Handover OnSite Education:**

Philips Education Specialists will provide twenty-eight (28) hours of education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Students should attend all 28 hours, and must include the two OffSite education attendees. CEU credits may be available for each participant that meets the guidelines provided by Philips. Please refer to guidelines for more information. Note: Site must be patient-ready. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. It is highly recommended for systems that are fully loaded or for customers with a large number of staff members to also purchase 989801292099 (CV Add OnSite Clin Educ 24h).

 Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref #106107-110915

<table>
<thead>
<tr>
<th>Line</th>
<th>Part</th>
<th>Description</th>
<th>Qty</th>
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<tbody>
<tr>
<td>2</td>
<td><strong>NCVA014</strong> Maximus Rotalix Ceramic Grid Switch T A MRC200-GS</td>
<td>30kW small focus and 67 kW Large focus loading with anode heat storage capacity of 2.4 MHU.</td>
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<td>Features:</td>
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<td>• Maximus ROTALIX Ceramic tube with 0.4 / 0.7 mm nominal focal spot values.</td>
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<td>• Tube housing ROT-GS 1004 for oil cooling with built-in thermal safety switch</td>
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<td>• Grid switching with dynamic pulsed fluoroscopy</td>
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<td>• Rotor control unit for continuous rotation of the anode disk.</td>
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<td>• Cooling unit CU 3000 heat exchanger for direct and continuous forced cooling with oil.</td>
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<td>• High Voltage cables</td>
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<td>3</td>
<td><strong>NCVA019</strong> MRC-GS 05/08 X-Ray Tube</td>
<td>Featuring:</td>
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<td>• SpectraBeam pre-filter</td>
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<td>• SyncraPulse Pulsed Progressive Fluoroscopy</td>
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<td>• 2.4 MHU anode heat storage capacity</td>
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<td>• 900 kHU/min heat dissipation</td>
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<td>Comprising:</td>
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<td>• Maximus ROTALIX Ceramic tube (MRC-GS 05/08 with Grid Switch for pulsed fluoroscopy)</td>
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<td>• Tube Housing (ROT1001)</td>
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<td>• Cooling Unit (CU3000)</td>
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<td>• MRC Rotor Control</td>
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<td></td>
<td></td>
<td>• High Voltage Cables</td>
<td></td>
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<tr>
<td>4</td>
<td><strong>FCV0588</strong> Isolated Wall Connection Box</td>
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</table>
Isolated Wall Connection Box
This Isolated Wall connection Box facilitates connection of the video source via standard DVI cable/connector and lossless transfer of the video signal over the approximate 30 m cable distance.

It can be mounted in the exam room or in the control room, depending on the location of the video source.

The quantity of the VWCB's has to be calculated as follows:
For each video signal via MultiVision: 1 VWCB (max = 4)
For each video signal to FlexVision XL on Cardio System: 1 VWCB (max = 9)
For each video signal to FlexVision XL on Vascular System: 1 VWCB (max = 8)
For each 3rd party video signal directly connected to an LCD in the MCS: 1x VWCB.

Note:
No VWCB is required in case a video signal is connected directly to a dedicated LCD from the following sources:
1) Xper Live/ref Slaving
2) Interventional HW (XtraVision), ViewForum, Xcelera (only if workstations are powered by Allura Xper)
3) Xper IM

5  **FCV0587  Xper Live/Ref Slaving  1  
Xper Live/Ref Slaving
The Xper Live/Ref Slaving will enable the option to slave the Live or Ref video source from the Allura Xper. The total amount of Xper Live/Ref Slaving that can be selected is max 4.
Xper Live/Ref Slaving is possible:
- In Control Room icw FCV0011 (B/W monitor in Control Room)
- In Philips MCS (additional monitor excluded from this option)
- icw FCV0519 1 or 2 MCS from Skytron/Steris

6  **FCV0589  Legacy Video Convertor  4  
Legacy Video Convertor
The Legacy Video Convertor enables conversion from VGA towards DVI.
The Legacy Video Convertor enables conversion from VGA towards DVI for supported input resolutions, as listed in the table below.

<table>
<thead>
<tr>
<th>Signal type</th>
<th>Native resolution</th>
<th>Image Aspect Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>4:3</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>4:3</td>
</tr>
<tr>
<td>XGA</td>
<td>1024x768</td>
<td>4:3</td>
</tr>
<tr>
<td>SXGA</td>
<td>1280x1024</td>
<td>5:4</td>
</tr>
<tr>
<td>SXGA+</td>
<td>1400x1050</td>
<td>4:3</td>
</tr>
<tr>
<td>UXGA</td>
<td>1600x1200</td>
<td>4:3</td>
</tr>
<tr>
<td>WXGA</td>
<td>1280x800</td>
<td>16:10 (8:5)</td>
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<tr>
<td>WSXGA</td>
<td>1440x900</td>
<td>16:10 (8:5)</td>
</tr>
<tr>
<td>WSXGA+</td>
<td>1680x1050</td>
<td>16:10 (8:5)</td>
</tr>
<tr>
<td>WUXGA</td>
<td>1920x1200</td>
<td>16:10 (8:5)</td>
</tr>
</tbody>
</table>
This package allows communication of the Allura Xper system with a local information system (CIS or RIS). The interface uses the DICOM Worklist Management (DICOM WLM) and Modality Performed Procedure Step (DICOM MPPS) standards.

If a hospital has an Allura Xper system and an information system it can receive patient and examination request information from the information system and report examination results in order to:

- Eliminate the need for retyping patient information on the Allura Xper
- Prevent errors in typing patient names and registration numbers (ensuring consistency with IS information to prevent problems in archive clusters or search for a name in case of later retrieval)
- Inform the IS about the acquired images and radiation dose

Upon request from the Allura Xper system the complete worklist with all relevant patient and examination data is returned from the IS to the Allura Xper system. For each patient the following information will be shown on the Allura Xper after it has been retrieved from the IS:

Patient Identification:
- Patient name
- Patient ID
- Birth date
- Sex

Examination/Request Information:
- Accession number
- Scheduled procedure step start time
- Scheduled performing physician's name

It is possible at all times to enter patient demographics information manually within the Allura Xper system in case of an emergency or in case the local Information System connection is down.

On request of the clinical user the Allura Xper will report the following information about the selected patient to the IS:

Patient Identification:
- Patient name
- Patient ID
- Birth date
- Sex

Examination/Request Information:
- Accession number
- Performed procedure step status start/end date and time
Automatic Position Control (APC)

The Automatic Position Controller (APC) for Integris Allura Flat Detector systems provides two modes of operation:

- Preset Position Sequence; the sequence of projections is determined per Xper Settings. Each set contains a maximum of 10 positions. Positions can be recalled in sequence or directly. The projection sequence comprises rotation, angulation, and SID settings, related to the selected reference image.
- Reference driven positioning. The projections on the reference monitors can be recalled with the push of a button. The reference driven positioning recollects the rotation, angulation, and SID.

Biplane FD SmartMask

SmartMask simplifies roadmapping procedures by overlaying a selected reference image with fluoroscopy on the live monitor fluoroscopy in the exam room. Smartmask can be applied to both the frontal and lateral channel simultaneously.

The reference image can be faded in/out with variable intensity, controlled from tablesde. SmartMask uses the reference image displayed on the reference monitor. Any previously acquired image can be used as reference.

SmartMask facilitates pre- and post- intervention comparisons to assess treatment results.

Ventricular Quant.Sw pkg(Xper)

Left Ventricular Quantification Software Package. Software package for the analysis of single plane Left ventricular angiograms. Calculates the Ejection fraction and local wall motion parameters in different formats.

Functions:

- Various LV-volumes
- Ejection Fraction
- Cardiac Output
• Centerline Wall Motion
• Slager Wall Motion
• Regional Wall Motion
• Calibration routines

In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.

Comprising:

• software license

Compatible with:
Allura Xper FD 10 Rel 3 and FD10/10 Rel 2 onwards
Allura Xper FD20 Rel 2, FD20/10 Rel 2 onwards

11 **NCVA785   Coronary Quant.Sw pkg(Xper)   1

Functions:

• diameter measurement along the selected segment
• cross sectional area
• %-stenosis
• pressure gradient values
• stenotic flow reserve
• calibration routines

In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.

Comprising:

• software license

Compatible with:
Allura Xper FD 10 Rel 3 and FD10/10 Rel 2 onwards
Allura Xper FD20 Rel 2, FD20/10 Rel 2 onwards

12 **NCVA121   FULL AUTOCAL   1

The AutoCal option is a software package to be used in conjunction with quantitative analysis software packages. It provides an auto calibration procedure for an object to be analyzed that is placed in the iso-center. When the object to be analyzed (e.g. Left Ventricle Vessel Segment) is placed in the iso-center AutoCal avoids the need to:

• acquire an additional image series containing a sphere or grid for calibration purposes
• calibrate manually on a calibration object (e.g. catheter) displayed in the image or image series to be analyzed

13 **NCVA851   Swivel for table base.   1
For angiographic- and interventional procedures of the upper and lower peripherals, in systems with the floor-mounted C-arm.

Allows:
Motorized longitudinal movement of the table base of 78.2 cm with locks on both end positions.
Pivoting of the table base around its vertical axis.
Pivot range is 180 degrees counter clockwise and 90 degrees clockwise with swivel the table height range is 83-111 mm or 87-112 mm with tilt and/or cradle (optional).

**NCVA101**  
Peripheral X-ray Filter  
Set of flexible x-ray filters to provide an uniform density in angiographic examinations of the lower peripheral area.  
Comprising:
· one central filter, at the top edge provided with sizing markers at every 5 cm, length : 1 m
· two side filters, length: 1 m

**NCV614**  
Equipment Rack DVI  
The Equipment Rack for EP cockpit allows users of the Philips Allura Xper system to organize all the equipment used in an EP Lab on one moveable rack and also allows for cables to be out of the way. This provides a much “cleaner” organized look for the busy EP Lab.

The ceiling-mounted Equipment Rack, which is located in the Exam Room, can support 3rd party equipment. Cabling for this equipment is guided up through the ceiling mounted suspension. It can be moved by swiveling the ceiling mounted boom. The Equipment Rack can be positioned within a circular range of 1.6 meters.

The Equipment Rack consists of:
· 5 shelves and 1 drawer with flexible mounting position and can support 225kg of equipment weight.
· An infusion extension rod
· An extension arm with a standard VESA mounting plate, on which different types of equipment can be mounted
· A Wall Connection Box (1 of the standard EP cockpit Wall Connection Boxes) with Power (230V, 50Hz), Grounding, Network (RJ45), Keyboard/mouse (USB) and Video (DVI) connections
· Cabling and connectors for EPMedSystems EPWorkmate, and Biosense Webster Carto equipment
· 10 country-specific power connectors
· 4 Ethernet network connectors
· Ergonomically operating handles with pneumatic brakes
· Standard gas outlets for O2, NO2, and Vacuum

Notes:
· Life-supporting equipment can not be connected to the Equipment Rack.
· Medical equipment with dedicated keyboards or displays should not be connected without consent of the manufacturer. Please contact your 3rd party equipment vendor for information and clearance.
· Only EP cockpit-compatible configurations of Carto and EPWorkmate should be connected. Customers are requested to contact their local Biosense Webster or EPMedSystems representative for further information on compatatability.
· The Wall Connection Box can be used to connect 3rd party equipment that complies with the following requirements:
· Qualified medical electrical equipment [IEC 60601-1]
• IEC 950 only if connected to an EP cockpit Wall Connection Box mains (230V) connection in the Control Room or otherwise isolated from hospital mains according IEC60601-1.
• Connected to the same earth as the Philips Protective Conductor Bar (PPCB).
• Can be operated with a standard AT 101-key US English keyboard connected through a USB connection.
• Provide video-output that matches the display range of the Color monitor that is used for display. Most display formats up to 1600x1200 are supported.

16 **NCVB629 FlexVision XL,XperHD,Snapshot 1

FlexVision XL is an integrated viewing solution designed to give you full control over your viewing environment.

The FlexVision XL provides the ability to:
- Display 2 to 8 screens simultaneously from up to 16 sources (incl. third party systems) on the Philips 56-inch color LCD in the Exam Room.
- Resize and/or enlarge information at any stage during the case.
- Select and customize viewing lay-outs of the Philips 56-inch color LCD via the Xper table-side module

XperHD on FlexVision XL brings High Definition viewing for clinical images. Native resolution of FD20 can be displayed. Excellent sharp and crisp clinical images can be displayed at full size without digital zoom.

Xper HD brings:
- High Definition imaging
  – Sharp images at full size without zoom
- High Definition display at native resolution
  – Up to 2k*2k image display fully integrated
- High Definition for the ultimate detail
  – Enhanced small vessel visualization
- Overview connected equipment (incl. third party systems) from a single location.

The FlexVision XL consists of:
- OmniSwitch
  o OmniSwitch allows the user to direct and switch the video output of all connected medical equipment to specific sub windows of the Philips 56-inch color LCD in the Exam Room.
  o OmniSwitch is a 16 channel video-switch operated from the Xper tableside module. 16 channels are available for a mix of up to 7 internal and up to 9 external inputs.
  o OmniSwitch supports a wide variety of display formats (up to 1600x1200).
  o External inputs are connected to OmniSwitch via Wall Connection boxe(s).
- Medical grade, high resolution color LCD in the Exam Room
  - This display supports the image quality requirements for monochrome X-ray images as well as color images and replaces all displays normally delivered with an Allura Xper FD or AlluraClarity system for the Exam Room.
  - Main characteristics are:
    56 inch, 8 Megapixel color LCD
    Native resolution: 3840x2160
    Brightness: Max: 450 Cd/m2 (typical) stabilized: 350 Cd/m2
    Contrast ratio: 1200:1 (typical)
    Wide viewing angle (approx. 176 degrees)
    Constant brightness stabilization control
    Lookup tables for grayscale, color and DICOM transfer function
    Full protective screen
    Ingress Protection: IP-21
- Large color LCD control (Xper Module)
  - Resize and/or enlarge information at any stage during the case via the Xper table-side module in the Exam or Control Room
  - Select viewing lay-outs via the Xper table-side module in the Exam Room
Create new layouts by matching inputs to desired locations on preset templates.

- Monitor Ceiling Suspension
  - Monitor ceiling suspension for use in the Exam Room carries the 56 inch color LCD, providing highly flexible viewing capabilities. The monitor ceiling suspension is height-adjustable and moveable along ceiling rails. It can be positioned on either side of the table.
  - Isolated Wall Connection Boxes
  - Up to 8 Isolated Wall Connection Boxes can be connected to FlexVision XL.
  - Through Isolated Wall Connection Boxes, 3rd party equipment can be connected to the FlexVision Omniswitch.
- Snapshot
  - The snapshot function allows the user to store/save a screen-capture of any image on the 56" display as a DICOM Secondary Capture image to a connected PACS.
  - The snapshot-all function allows the user to store/save a screen-capture for each displayed image in the Exam Room / Control Room as separate DICOM Secondary Capture images.

17 **989600207421** Equipment rack Predelivery set
Pre-delivery for Equipment Rack.

18 **989801292099** CV Add OnSite Clin Educ 24h
Clinical Education Specialists will provide twenty-four (24) hours of CV OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEU credits may be available for each participant that meets the guidelines provided by Philips. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. Education expires one (1) year from the earlier of equipment delivery date or purchase date.

19 **989801292102** CV Full Travel Pkg OffSite
Includes one (1) participant’s airfare from North American customer location to Cleveland, Ohio, with lodging, ground transportation, and meal expenses. Breakfast/dinner provided by the hotel, and lunch/breaks are catered by Philips. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced.

Education expires one (1) year from equipment installation date (or purchase date if sold separately).

20 **980406041009** Rad Shield w/ Arm (Contoured) 61X76
Contoured Rad Shield with Arm rest. 61X76

21 **989801220076** Exam Lamp 220v
Spring arm mounted examination light for cardiovascular applications

22 **989801220080** Portegra 2 360 Ceiling Column
Portegra 2 360 Column w/ trolley and ceiling track

23 **989801220096** WIDE 19" Monochrome LCD

24 **989801250000** Single LCD Monitor Cart

Quotation #: 1-UXN3RZ Rev.: 4
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*******PROMOTIONS*******

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