

PO# 508-4B5013

Line #	Part #	Description	Qty
1		30Fr/sec Extension	1
		Frame Rate Extension increases the system acquisition speed for cardiac applications that require high speed imaging. The frame rate extension increases the acquisition speed to 15fps and 30fps with a 1024x1024 matrix.	
2		FlexVision XL 8 Input Package	1
		The FlexVision XL8 input package provides eight isolated wall connection boxes and eight legacy converters.	
		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 to FlexVision XL on Vascular System: 8 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 Legacy Video Converter The Legacy Video Converter enables conversion from VGA towards DVI for supported input resolutions as listed in the table below. Signal type Native resolution Image Aspect Ratio VGA 640x480 4:3 SVGA 800x600 4:3 XGA 1024x768 4:3 SXGA 1280x1024 5:4 SXGA+ 1400x1050 4:3 UXGA 1600x1200 4:3 WXGA 1280x800 16:10 (8:5) WSXGA 1440x900 16:10 (8:5) WSXGA+ 1680x1050 16:10 (8:5) WUXGA 1920x1200 16:10 (8:5) 2K 2048x1080 19:10 TV1080I/P 1920x1080 16:9 TV 480I 720x480 4:3 TV 480P 704x480 4:3	
3		Allura Xper FD20/10 Rel. 8.1 - Vascular	1

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 right side of the patient, which provides lower scatter radiation towards the operator.

Ceiling carriage longitudinal movement: 315 cm

The lateral stand projection ranges:

- Rotation range (degrees): 27 RAO to 117 RAO
- 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 per second, fixed
- Combined rotation speed (frontal / lateral): 8 degrees per second, fixed
- Angulation speed: 8 degrees per second, 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)
- One Head Support (FCV0251)
- One Arm Support (FCV0258)
- One Table-mounted Radiation Shield
- One anti-fatigue mat with Philips logo

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
 - Xres is a multi-resolution spatial temporal noise reduction and edge enhancement filter
 - Xres Vascular enhances sharpness, contrast, and reduces noise in non subtracted fluoroscopy runs for vascular studies.
 - The settings for Xres can be customized with regard to the image quality.

- Xper Fluoro Storage, a grab function allows storage and archiving of both a fluoro image and the last 20 seconds of Fluoroscopy, called Xper Fluoro Storage. These fluoro images or fluoro runs can be archived as a regular exposure run.

X-ray tube

The Allura Xper FD20 biplane frontal stand has the Maximus ROTALIX Ceramic grid switch tube assembly MRC 200 GS 0407 integrated in the C-arc. This MRC tube has an anode heat storage capacity of 2.4 MHU and 0.4/0.7 mm. nominal focal spot values. The tube has a maximal loading of 30 and 67 kW.

The lateral arc has the Maximus ROTALIX Ceramic tube assembly MRC-GS 05 08 integrated. This tube has 0.5/0.8 mm nominal focal spot values with maximal loading of 45 and 85 kW. The maximum heat dissipation of the assembly is 3400 W.

With dynamic pulsed fluoroscopy the tube uses grid switching technology to eliminate soft radiation and improve image quality. SpectraBeam allows for filtration of the x-ray beam with (a combination of) 0.2, 0.5 or 1 mm CU-equivalent filters.

Tube housing ROT-GS 1004 is for oil-cooling and has a build-in thermal safety switch. A rotor control unit is build-in for continuous rotation of the anode disk. The heat exchanger CU 3101 is for direct and continuous forced cooling with oil.

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

Real time digital link

The Allura Xper FD20/10 provides a Real Time digital image link

VIEWING

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

Displays

Examination Room

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.

Unless otherwise stated, a Flat Monitor Ceiling Suspension (MCS) for 4 monitors is included for viewing in the examination room. It includes motorized height adjustment for most configurations and ceiling heights. At customer request, this 4 monitor MCS can be replaced by a 4, 6 or 8 fold MCS or an MCS integration kit for non-Philips MCS. The MCS integration kit contains vital parts for system operation. 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
- Frame Rate Extension Biplane for 15fps and 30fps with a 1024x1024 matrix

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

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

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 tableside. 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
- Xper Fluoro Storage and Grab
- Selection of the Detector field size
- Shutter positioning
- Reset of the fluoroscopy buzzer
- Subtraction and other vascular processing factors
- Channel selection for the shutter and wedge control

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.

Radiation Dose Structured Report

Collection of dose relevant parameters and settings and export to a DICOM database (e.g. PACS, RIS), according IEC60601-2-43, 2nd Edition.

The reported data can be used for, for example:

- Quality improvement: evaluating trends in X-ray dose performance per facility, system and operator.
- RDSR enables analysis of average dose levels & variance for routinely performed exams and procedures.
- Typical system usage can be extracted from the data.

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

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****NCVA801**

Table APC

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The Automatic Position Controller (APC) for the table provides two modes of operation:

- Auto positioning. The tabletop position and table height will be adjusted automatically to the pre-defined default point of interest. This to save time and x-ray dose at the start of an exam or for setting up the system for rotation scans.
- Store/recall of a position of the table top. This includes the height-, longitudinal- and lateral position of the table top.

5 Automatic Position Control (APC) 1

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.

6 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
 - 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.
 - 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.
 - OmniSwitch supports a wide variety of display formats (up to 1600x1200).
 - External inputs are connected to OmniSwitch via Wall Connection box(es).
- 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 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 gray-scale, 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 tableside 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.

7

Physio Viewing

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Physio Viewing allows for the acquisition, storage and display of up to four channels of physiological data, in parallel with X-ray acquisition. The user can select one of the recorded physio signals for display, together with the acquired image.

8

Subtracted Bolus Chase

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For visualization of vessel structures when the blood flow is difficult to estimate, in particular in the lower peripherals.

Bolus Chase solves the problem of cumbersome step movements, the mismatch between blood flow and selected program, and lack of real-time image information.

During digital acquisition in non-subtracted mode with uninterrupted real-time image display, the contrast bolus is followed (chased) interactively by a motorized table scan movement using a hand-hold speedcontroller to adapt the speed of the table scan to the contrast flow. The framespeed can be adapted as well.

The bolus run is followed with a mask run while using the same speedcurve and framespeed as generated during the bolus run. Viewing is possible in the subtracted and non-subtracted mode. If subtracted viewing is not required, the mask run can be skipped.

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
- Performing physician's name
- Referenced image sequence

Radiation dose:

- Total time of fluoroscopy
- Accumulated fluoroscopy dose
- Accumulated exposure dose
- Total dose
- Total number of exposures
- Total number of frames

Further detailed information can be found in the Allura Xper DICOM Conformance Statement.

The interface requires an EasyLink (hardware and software) if the IS is not compliant with DICOM Work List Management and Modality Performed Procedure Step.

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|--|------------------|-----------------------------|---|
| 11 | **NCVA092 | Lab Reporting | 1 |
| Lab Reporting allows the user to generate and print simple reports in modality stand-alone situations. The user is able to incorporate free text and clinical images. The reporting functionality is suited for local printing and email. Part of the report is generated automatically from administrative data (e.g. patient/exam data hospital name) and required data (e.g. run-log dose information and event-log). | | | |
| 12 | **NCVA781 | Dicom Print compose | 1 |
| Dicom Print provides the possibility to interface to any DICOM Printer. This is an automated printing protocol. The option provides Print Manual Overrides, Print Job submission, and Print Job management. | | | |
| 13 | **NCVA673 | Biplane FD SmartMask | 1 |
| 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 tableside. 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.

Compatible with

. Allura Xper FD10/10 rel.2 onwards.

- Allura Xper FD20/10 rel.1 onwards

. Allura Xper FD20/15

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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

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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

16

Peripheral X-ray Filter

1

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

17

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 clock wise and 90 degrees clockwise

with swivel the table height range is 83-111 mm or 87-112 mm with tilt and/or cradle (optional).

18 CABLE CARRIER CS 4

Additional carrier for suspension of cable hose from X-ray tube assembly or TV monitor.

19 CV Full Travel Pkg OffSite 2

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 IXR Additional Training 28 Hours OnSite 1

Clinical Education Specialists will provide twenty-eight (28) 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. Please refer to guidelines for more information. 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.

21 Airfare to Cleveland for Biomed Training 2

Includes one (1) participant's airfare from North American customer location to the Cleveland Training Center (CTC) in Cleveland, Ohio. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Expires one (1) year from the earlier of equipment delivery date or purchase date.

22 Food Transpt Lodging for Cleveland Biomed Training 22

Includes one (1) day of modest lodging, ground transportation, and meal expenses in Cleveland, Ohio for one (1) attendee. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Although this part is only for one day, it is sold in multiple quantities to account for entire length of course. Expires one (1) year from the earlier of equipment delivery date or purchase date.

23 XD3970ALLURAFD7.6PART1C TC9 2

Course Number: XD3970

System Codes: 722010, 722011, 722012, 722013

Course Title: Allura Xper Rel 7.6 Part 1

Course Length: 9 days (exclude Saturday, Sunday, and Philips holiday)

Delivery Method(s): Instructor-Led

Modality: iXR

Location: PHC, SLC, CTC

Target Audience: Service Engineers.

DESCRIPTION:

Part 1 trains the Customer Support engineer to a technical level which will enable him/her to perform Planned Maintenance (PM) and basic Corrective Maintenance (CM) on Allura Xper systems, according to the Customer Support philosophy. He / She will also be able to assist during a system installation.

Part 1 can be followed up by part 2, intended for dedicated Cardio Vascular modality Engineers.

Part 2 focuses on setting to work (configuration) and extended Corrective Maintenance.

The following Allura Xper systems are covered:

FD10 release 7.6

FD10/10 release 7.6

FD20 release 7.6

FD20/10 release 7.6

FD20/20 release 7.6

PREREQUISITES:

CS9020 BASIC NETWORKING

XC3002 X-RAY SYSTEMS BASIC PART 2

COURSE OBJECTIVES:

The engineer will learn how to:

- Operate the system, as far as required to perform service tasks.
- Make use of the service documentation.
- Make use of basic functionality of the service tools.
- Perform Planned Maintenance:
 - Safety checks
 - Performance checks
 - Adjustments(Not included: Mechanical checks)
- Create a backup of the system.
- Perform a restore of the system.
- Perform basic CM with help of the service documentation and service tools.
 - Faultfinding using the System Manual Corrective Maintenance.
 - Focus on replacement of parts with a high exchange rate.
 - Retrieve the log file from the system to escalate a problem.
- Customize positions for Automatic Position Control in the EPX-database.

MAJOR TOPICS:

Introduction Allura Xper systems

Operating

Service documentation

Service tools

Planned Maintenance

Corrective Maintenance

System Architecture

X-ray generation

Geometry

Operator controls

Power supply

Imaging

System control
Radiation safety
Image quality
Customization
Software

* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF AN ALLIANCE CO; OP AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

24	Black Anti-Fatigue Floor Mat w/ Blue Logo	2
	Blue Anti-Fatigue Floor Mat w/ Logo	
25	Rad Shield w/ Arm (Contoured) 61X76	1
	Contoured Rad Shield with Arm rest. 61X76	
26	Cable Spooler	1
27	Exam Lamp 220v	1
	Spring arm mounted examination light for cardiovascular applications	
28	Mach 3 Dual Focus Lamp 220v	1
	The Mach 3 DuoFocus exam lamp brings daylight quality lighting to the interventional suite. The lamp provides a color rendering index Ra of 96.5. The focusable light field size is 8 – 35 cm with a working distance of 60 – 150 cm.	
29	Mark 7 Arterion, Table Mount	1
	The Mark 7 Arterion Injection System is the latest in MEDRAD's "Mark" series of angiographic injectors. Compared to earlier systems, the Mark 7 Arterion injector head is lighter and easier to use so you can focus more on the patient. The clear and intuitive user interface guides you through proper set-up, and highlights the information you need to perform safe procedures. Unique to the market, the front load system simplifies set-up and makes for a cleaner tear down. The clear syringe provides a higher level of confidence that you are ready to inject.	

Made from a clear material, the Mark 7 Arterion syringe (Catalog ART 700 SYR) allows you to easily view the inside of the syringe for smoother purging of air. And MEDRAD's famous fluid dots are still there to help-round for fluid, oval for air.

The table mount injector solution ensures the contrast injector is conveniently placed and always available when it is needed. It provides a clean workspace without occupying valuable floor space. System includes:

- Table Mount
- display control panel
- 6 ft. coiled hand switch
- operation manual (CD)
- 10 ft. head cable
- syringe heat maintainer
- imaging system interface cable for the Allura / Allura Xper
- consumables starters kit

For the MEDRAD Mark7 Injector system Philips is only the distributor. MEDRAD provides the service as well as the application support of both versions unless stated differently in the Philips Service Agreement

System Specifications:

- Flow Rate 0.1-45.0 ml/s in 0.1 ml increments
- 0.1-59.9 ml/m in 0.1 ml increments
- Volume 1-150 ml in 1 ml increments
- Pressure Limit 100-1200 psi in 1 psi increments
- (150ml syringe) 689-8273 kPa in 1 kPa increments
- Rise Time 0.0-9.9 seconds in 0.1 increments
- Delay Time 0.0-99.9 seconds in 0.1 increments
- Fill Speed 1-20 ml/s
- Fill Volume 1-150 ml
- Syringe Size 150 ml
- Syringe Heat Maintainer 35 °C (95 °F) ± 5 °C (9 °F)
- Protocol Memory 40 Protocols
- Injection Memory History

30	Ceiling Track w/Column & Handle Ext	1
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Mavig 2.5m Ceiling Track with Ceiling trolley, 360 degree column, and brake handle extension.

31	Horizon GS Paper Only	1
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Dicom Printer
An intelligent desktop-sized grayscale output device that produces diagnostic quality medical hardcopy on 14" x 17" and 8.5"x 11 medical-grade paper (white film). The imager accepts many industry standard file formats including DICOM and incorporates networking high speed image processing and spooling capabilities.
Codonics proprietary direct thermal print technology delivers 4 96 gray levels providing "no compromise" diagnostic film output. The grayscale paper output is an exclusive media developed by Codonics for referral copy and patient review and is a fraction of the cost of film. Can be used for all modalities.

Consisting of:

- Grayscale Desktop Medical-Paper Diagnostic Imager
- DICOM (2 Associations)
- Cables straight and cross-over
- 1 Case of DV Paper Blue 14 400 Sheets
- 1 Case of DV Paper Blue 8.5 400 Sheets
- 1 year depot swap warranty

Compatible with any system that supports DICOM printing.

Available Options:

- Post-Script Level III printing
- Upgradeable to Horizon GS