Line #	Part #	Description	Qty	Each	Price
1	****NNAE453**	**AlluraClarity FD20C ORT FlexMove**	**1**		

AlluraClarity FD20 ORT FlexMove monoplane system is a state of art X-ray imaging system that can be customized to support a wide range of applications including peripheral, abdominal, cerebral, thoracic, cardiac and non-vascular interventional and diagnostic procedures.

ClarityIQ technology is the foundation of AlluraClarity systems touching every part of the imaging system.

ClarityIQ incorporates powerful state-of-the-art image processing technology, developed by Philips research, all working in real-time enabled by the latest computing technology:

- Noise and artifact reduction, also on moving structures and objects
- Image enhancement and edge sharpening;
  Automatic real-time patient and accidental table motion correction on live images.
- Flexible digital imaging pipeline
- ClarityIQ systems have a flexible digital imaging pipeline from tube to display that is tailored for each and every application area such as Cardio or Neuro. This gives the flexibility to select virtually unlimited application-specific configurations.
- With ClarityIQ over 500 system parameters are fine-tuned for each application area; the result of years of Philips clinical leadership. It is now possible to filter out more X-ray radiation, use smaller focal spot sizes, shorter pulses, thereby fully utilizing the unique capabilities of the Philips MRC X-ray tube.

The AlluraClarity FD20 ORT FlexMove system uses an integrated single-host concept. The system is comprised of five functional building blocks: Geometry, X-ray Generation, Image Detection, Viewing, and User Interface. Each functional building block is explained in further detail including accessories.

The AlluraClarity FD20 with FlexMove option allows placement in a normal operating theater.

- The new ceiling construction enables the use of Laminar Airflow.
- In case no imaging is needed, the system can be parked in the corner, which allows a normal operating area when doing open surgery and enables the user to make full use of the lab.
- The head-end side of the patient is still available for anesthesia and therefore not blocked by the Allura system.

GEOMETRY
The AlluraClarity FD20 FlexMove Stand

The Allura FlexMove stand is a stable assembly of a C-arm and a ceiling suspended L-arm. The ceiling suspended L-arm provides the following advantages:

- The new ceiling construction allows the system to be steered over the patient by using a joy-stick which prevents table panning which is not wanted in a lot of cases.
- The system can be positioned behind a physician or someone of the staff which gives them all the space they need around the patient and can be moved in a simple manor whenever needed.
- The new ceiling construction allows the system to be moved around the patient and be brought in from any position.
- When a minimally invasive procedure has to convert to open surgery, the system can easily be moved out of the way.
- The AlluraClarity system with FlexMove takes only limited amount of space around the table and for that reason has limited impact on the workflow of the physicians and staff in the room.
- The FlexMove option is available for two different ceiling heights being 2900mm and 3100mm.

The stand has the following capability:

- The L-arm can be rotated and can be moved in longitudinal direction allowing a three-sided patient approach and total body coverage.
  - L-arm rotation around the patient table: +90, 0, -90 degrees.
  - FlexMove coverage: Y stroke 4400mm, X-stroke 2600mm

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):
  - o C-arm rotation range (degrees): 90 LAO to 90 RAO
  - o C-arm angulation range (degrees): 185 CA to 120 CR or 120 CA to 185 CR
  - o (Full angulation capability determined by patient position)
- The stand provides fully motorized fast movements with variable and configurable maximum speed.
  - o Variable C-arm rotation speed, up to 25 degrees per second
  - o Variable C-arm angulation speed, up to 18 degrees per second
- L-arm rotation and longitudinal movement: 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 86.5 to 123 cm.
- The stand features BodyGuard a capacitive sensing collision avoidance system for patient protection.

Maquet Magnus Interface

The Allura FD20 ORT system contains an interface to the Magnus (MAQUET) Operating table system (fixed column). The integration of the Magnus (MAQUET) surgery table includes support of:

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- Safety:
  - Integrated Emergency Stop; all motorized movements (including table), are stopped when the AlluraClarity emergency stop button is pressed
  - Integrated Collision detection, all motorized movements (including table), are slowed down or stopped when Bodyguard detects the patient
- Workflow:
  - Easy patient positioning with the basic table functions via Xper Geometry module and Magnus (MAQUET) UI controls; table height, tilt, cradle, longitudinal/lateral movement and reset geo.
  - Synchronized patient orientation setting between Magnus (MAQUET) and AlluraClarity
- Advanced Functionality:
  - Iso-centric tilt features a tilt movement of the table top while keeping the point of rotation fixed in the iso-center of the imaging system.
  - Syncra-tilt synchronizes the stand orientation with the iso-centric tilt movement keeping the view perpendicular to the table top surface.

Accessories

- One Table-mounted Radiation Shield
- One anti-fatigue mat with Philips logo

X-ray Generation

The AlluraClarity FD20 comprises an integrated dedicated X-ray system, micro-processor controlled Velara CFD generator based on high frequency converter technique. The user interface control of this X-ray Generator is incorporated in the Xper module, Xper Desktop Viewing Console, and the Xper on-screen displays.

The Certeray generator comprises:
- X-ray generator: 100 kW
- Voltage range: 40 - 125 kV
- Program selection:
  - Pulsed X-ray up to 3.75 , 7.5 , 15 , 30, frames/s for digital dynamic exposures
  - Pulsed X-ray for pulsed fluoroscopy (3.75, 7.5, 15, 25, 30 frames/s).
  - Minimum exposure time of 1ms.
  - ECG triggered acquisition: allows acquiring one exposure for each QRS peak with selectable delay time
  - Automatic kV and mA control for optimal image quality prior to run to save dose
  - Optimal X-ray tube load incorporated in the Certeray generator
- An X-ray collimator with single semi-transparent wedged filter with manual and automatic positioning.
- SpectraBeam filtering of low energy radiation to optimize image quality and dose efficiency with the MRC-GS 0508 X-ray tube.
- Xper Beam Shaping, which means that, both shutters and wedges can be positioned 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
  - Roadmap Pro can be selected from the Xper imaging module and/or Xper module.
  - A vessel map is created and superimposed with (un)subtracted live fluoroscopy. Acquisition runs can be done during Roadmap without losing the vessel map. Roadmap Pro features Smart Settings in special clinical modes that are optimized to visualize special materials such as coils and glue. Live processing of the vessel map, the device map and the landmark map can be done on the Xper Module. Xres for vascular procedures is standard part of Roadmap Pro.
    - **Disclaimer:** AMC only corrects movement artifacts in two dimensions. Three dimensional movements such as swallowing or rotation of the head cannot be corrected.
  - In Roadmap Pro R2 "Automatic Motion Compensation" (AMC) is added to the roadmap functionality. During roadmap, small movements of the patient 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 (neurology) applications where subtraction imaging is applied.
    - Disclaimer: AMC only corrects movement artifacts in 2 dimensions. 3 dimensional movements like swallowing or rotation of the head cannot be corrected.
- 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 AlluraClarity FD20 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.

Dynamic pulsed fluoroscopy 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

The AlluraClarity FD20 comprises the following image detection chain:

- A 30 cm by 40 cm FD20 Dynamic Flat Detector with eight imaging modes.
  - 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 digital output of the FD20 flat detector is 2k*2.5k image matrix at 16 bits depth for the largest mode
- The flat detector subsystem features Xper Access, the detector can be rotated over 90 degrees, it moves from portrait to landscape back & forth
- DQE (Detective Quantum Efficiency) >77%
- The pixel pitch: 154 x 154 microns

Viewing

Line #	Part #	Description	Qty	Each	Price

The AlluraClarity FD20 comprises the following components in order to display the clinical images in the control and examination room:

Displays

Examination Room

Two 19-inch monochrome LCD monitors designed for medical applications. The first display is used for viewing live images. The second display is the reference monitor.

- 19-inch monochrome TFT-LCD display with a 160 degree viewing angle.
- 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, with FlexMove an integration kit is supplied for a third party Monitor Ceiling Suspension (MCS) containing crucial parts for operating the equipment.

Two medical monochrome LCD monitors are included for the exam room. One monitor is used for viewing of live images. The second monitor serves as the first reference display. Reference images or runs are controlled by infra-red remote-control Xper Viewpad.

- Of the two medical monochrome LCD monitors included in the MCS, one is used for viewing of live images and the other serves as the first reference display. Reference images or runs are controlled by infra-red 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. For cardiac applications, the system also monitors and displays body zone specific Air Kerma data (10 zones).

Control Room

One 19-inch color LCD monitor used as a data monitor.

- 19-inch color TFT-LCD display
- Native format 1280x1024 SXGA

One 19-inch monochrome LCD monitor (Xper review monitor) designed for medical applications.

- 19-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

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- 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
- Acquisition frame rates:
    - 0.5 to 6 images/s at 2048 x 2048
    - 15fps and 30fps at 1024x1024

The AlluraClarity FD20 offers a storage capacity of:
- 50,000 images at matrix size of 1024 x 1024
- 12,500 images at matrix size of 2048 x 2048
- 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, which customizes the system to each user preferred settings. 2) Xper User Interface 3) Xper Integration, which makes advanced integration functionality available such as DICOM Query / Retrieve, background archiving, and Xper Fluoro Storage.

The Xper User Interface uses User Interface modules in the Examination Room with On-Screen Display.

The On-Screen Display is positioned on the left side of the reference monitor. The following system information is displayed
- X-ray indicator and X-ray tube temperature condition
- Gantry position in rotation, angulation, and Source Image Distance
- Detector field size display
- General System messages < LI>Selected Frame speed
- Fluoroscopy mode
- Integrated fluoroscopy time
- Skin Dose and Dose Area Product
- Stopwatch

The Xper ViewPad contains the preprogrammed function settings. The system is provides 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
- Image Processing

The Xper Geometry module can be positioned on all sides of the patient table, while keeping the button operation intuitive. The Xper Geometry module provides the following functionality:
- Tabletop float and table height position
- Source Image Distance selection
- Longitudinal movement of the Gantry along the ceiling
- Gantry rotation in an axis perpendicular to the ceiling
- Store and recall of two scratch gantry positions including SID
- Emergency stop button

The Xper Imaging module can also be positioned on three sides of the patient table, while keeping the button operation intuitive. The Xper Imaging module provides the following functionality:
- Fluoroscopy Flavor selection defined per Xper Setting
- Shutters and Wedge positioning
- Xper Fluoro Storage and Grab

- Selection of the Detector field size
- Shutter positioning
- Reset of the fluoroscopy buzzer

Xper Pedestal

- Xper Geometry and Imaging modules are mounted on the mobile Xper Pedestal.
- The Xper pedestal is connected to a system wall box via an 8 meter cable.

Pan Handle (NCVA081)

The Pan Handle is an extension of the control facility for floating movements of the tabletop.

Control Room

The control room comprises a Xper Review Module, Xper Desktop Module, 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, and accumulative dose
- Frame speed settings, fluoroscopy mode, and accumulated fluoroscopy time
- Exposure and fluoroscopy settings as Voltage (kV), Current (mA) and pulse time (ms)
- Geometry information as rotation, angulation, and SID

Scheduling

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

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. Furthermore, 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 own room protocols. This preparation page makes hard copies of the protocol instructions redundant.

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

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.

Secondary Capture Dose Report

- The Secondary Capture Dose Report function allows the user to save & transfer, manually or automatically, a patient Dose Report to PACS in DICOM secondary capture format.
- The dose report will be stored in the related patient image folder.

Archive

Continuous Autopush (NCVA090)

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 and wishes for programming under the Xper Settings,

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 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.

Remote Service

Access to the system from a Remote location is possible via network or modem connection. Remote access to a system can shorten the time needed for e.g. changing system settings or problem diagnosis.

Clinical Education Program for AlluraClarity ORT Systems

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. 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. **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. 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**

ORT Pre-Training OnSite Education:

Philips Education Specialists will provide twenty four (24) hours of pre-training applications for up to (8) students selected by customer, including technologists from night/weekend shifts if necessary. This training will be coordinated with the Maquet Magnus applications staff and occur the week prior to the Handover OnSite Education.

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 purchase989801292099 (CV Add OnSite Clin Educ 24h).**

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 735736737-20120501

Line #	Part #	Description	Qty	Each	Price

Clinical Education Program for FlexMove C-Arm

FlexMove C-Arm OnSite Education:

Philips Education Specialists will provide twenty -four (24) hours of pre-training applications for up to (8) students selected by customer, including technologists from night/weekend shifts if necessary. This training will be coordinated to provide instruction on the operation of the FlexMove C-Arm prior to the Go Live handover date of the entire Allura Imaging System. **In the event that a Maquet OR table** with 24 hours of pre training has also been purchased this FlexMove 24 hour training will be used as a post handover follow up session. No CEU credits will be available for this session. Please refer to guidelines for more information. Note: The equipment must be entirely operational. Philips personnel are not responsible for actual patient contact or operation of the equipment during the education sessions except to demonstrate proper equipment operation.

Education expires one (1) year from equipment installation date (or purchase date if sold separately) . Ref #699-20110915

Line #	Part #	Description	Qty
2	****NNAE391**	**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 Convertor
The Legacy Video Convertor 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

Line #	Part #	Description	Qty	Each	Price
3	****NNAE347**	**XperGuide/XperGuide Ablation/XperCT**	**1**		

The Ablation Bundle is comprised of three Interventional Tools software programs, XperCT, XperGuide and XperGuide Ablation.

XperCT

XperCT extends the capabilities of the interventional suite offering CT like imaging to visualize bone, soft tissue and vessels in case of contrast enhanced acquisition. A wide range if XperCT protocols are available for different procedures varying from neuro to abdominal, up to high resolution stent imaging. All protocols can be selected at the tableside via the XperModule. The XperCT acquisition scan acquires up to 60 frames/sec. The high frame rates are beneficial for the dedicated abdomen protocols, requiring only a short breath hold for the patient and providing optimal image quality. Fast acquisitions protocols require a 5 to 10 seconds scan.

The XperCT imaging process is fully automated in the Allura Xper system. The XperCT 3D volume is displayed automatically in less than a 1 minute (from acquisition to display), with the fastest protocols taking only 25 seconds. No user interaction is required. Especially in critical cases it is important to obtain a fast overview.

XperCT R3 Plus also includes major image quality improvements:

- Metal Artifact Reduction: reduce the artifacts caused by metal presence in the region of interest
- BMI Noise Reduction: reduce the noise caused by large size patients

Metal artifact reduction is an improved algorithm on XperCT that allows minimizing the artifacts caused by the metal presence in the region of interest. The most typical example of metal presence are: metal implants, coils or stents with stainless steel structure.

In case the original XperCT shows metal artifacts, the interventional radiologist can perform a second reconstruction and select for Metal Artifact Reduction, which will remove the artifacts caused by the metal present.

BMI noise reduction is a new algorithm that allows for an improved IQ of XperCT, reducing the artifacts caused by excessive body mass index patients.
In case the original XperCT shows artifacts caused by the results of excessive BMI, the interventional radiologist can perform a second reconstruction and select for BMI Noise Reduction, which will smoothen the image, providing a better image quality.

Note: BMI Noise Reduction is only available when Abdominal XperCT runs is selected

The XperCT 3D volume can be viewed in the control room and in the examination room. The viewing package comprises:

- 3D volume viewing in any desired orientation
- Slice viewing in any desired orientation
- Slice viewing at any slice thickness with a minimum of 0.5 mm
- Five distance measurements calculated in the same volume, including "Quick measurement" feature

- Cut-plane functionality to provide precise insight into anatomical structure
- Unique high-resolution reconstructive zoom technique
- Graphical display of stand position including rotation and angulation parameters
- Contrast and brightness control
- Contrast resolution 5-10 Hu
- Spatial resolution of the initial reconstruction: 10 lp/mm
- Contrast range -1000 to 2000 Hu
- High resolution imaging mode produces
- 512x512x512 volume rendered reconstructions
- XperCT can be controlled via the Xper 3D module and the mouse at tableside.

The XperCT volume can be matched with (when additional options are available) Allura 3D-RA and pre acquired CT or MR volumes. This view allows to combine multiple images from different modalities in order to provide additional anatomical insight.

This new multimodality volume can be viewed with the following functionality:

- Automatic or manual registration of the two volumes from the same patient
- The resulting volume can be viewed with complete 3D-RA viewing functionality
- The XperCT slice can be overlaid onto the 3D vessel for better assessment of the region of interest
- Three different contrast rendering options to allow optimal viewing of the 3D vessel in the soft tissue structure (128x128x128, 256x256x256 and 512x512x512 volumes)
- Movie clip recording functionality (AVI) to capture dynamic views
- 3D automatic position control at tableside: When an optimal working position is selected from the 3D-RA volume the C-arc steers itself to the selected position
- 3D Follow C-arc at tableside: When selected, the 3D-RA volume automatically follows the position of the C-arc.
- XperCT data and 3D-RA with XperCT overlay is stored in the same patient file as all other patient related data. All this data can be reviewed at any time

And sent to:

- Any optional DICOM compatible device (e.g. PACS/ViewForum/Xcelera), supported are DICOM XA, DICOM
- SC, DICOM CT and DICOM 3D
- Any PC in a standard PC compatible format (JPEG,AVI)
- And stored/archieved on
- A PACS system as DICOM Secondary Capture images or movies
- USB removable memory device
- One or multiple DVD's, CD-ROM(s) for easy archiving
- Hard copy via the (DICOM Print) protocol

CV XperCT Handover OnSite Education: Philips Education Specialists will provide eight (08) hours of 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: 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.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 335-100615

XperGuide

XperGuide enables real-time needle guidance in the angio suite.

Virtual needle paths are created on an XperCT dataset or on the previous acquired CT or MR data set. XperGuide option matches the real-time 2D fluoroscopy images with the 3D volume of XperCT, CT or MR; to visualize the actual needle path versus the virtual path previously planned.

This volumetric dataset can be viewed in any slice direction. A wide range of gantry projections can be used to define the needle path.

Path planning can be done:

- By drawing a virtual needle path on an XperCT, MR or CT slice
- By defining entry and target points on different XperCT, MR or CT slices
- By defining a help line on a 3D volume XperGuide automatically calculates the optimal gantry projections for the path and transfers them to the planning to draw the needle path.

The calculated virtual needle paths can be viewed on the XperCT, MR or CT slices, to verify if this path is feasible. XperGuide supports planning of multiple needle trajectories. During the needle procedure, XperGuide is fully controlled at tableside. When XperGuide is active, guidance is automatically active when the fluoro pedal is pressed. The live 2D image is projected over the XperCT, MR or CT volume The gantry can be positioned in the calculated gantry positions or controlled manually. The XperGuide images (live 2D fluoro projected over the XperCT, MR or CT volume) will follow the gantry projections.

At table side, XperGuide adapts in real-time to the following parameters:

- Changes in the angulation of the C-arm
- Changes in the rotation of the C-arm
- Changes in the field of view
- Changes in the source image distance

XperGuide run are in the same patient file as all other patient related data. All this data can be reviewed at any time.

XperGuide runs are stored together with the XperGuide movies and snapshots can be sent to:
- Any optional DICOM compatible device (e.g. PACS/ViewForum/Xcelera), supported are DICOM XA, DICOM SC, DICOM CT and

DICOM 3D

- Any PC in a standard PC compatible format (JPEG, AVI)

And stored/archived on:

- A PACS systems as DICOM Secondary Capture images or movies
- USB removable memory device
- One or multiple DVD's, CD-ROM(s) for easy archiving
- Hard copy via the (DICOM Print) protocol

Clinical Education Program for XperGuide

CV XperGuide Handover OnSite Education: Philips Education Specialists will provide eight (08) hours of 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: 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.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref # 336-100316

XperGuide Ablation

The XperGuide Ablation Program consists of the XperGuide Ablation software; a dedicated peer to peer training and a three day follow up on site.

Together with the XperGuide Ablation software, this option includes the enrollment of one physician to a Tumor Ablation Training, which will take place at a Philips' reference hospital for tumor ablation procedures.

The training through an experienced clinician is provided in a one and half day workshop with hands-on in-depth training on the clinical use, indications and best practices of XperGuide Ablation..

A subsequent three day follow up Clinical Application Support in Tumor Ablation at the customer site by experienced Philips staff; will guide through the first procedures.

XperGuide Ablation is an extension to XperGuide Software to facilitate the planning of tumor ablation procedures. It supports all percutaneous ablation techniques (RF, microwave and cryo-ablation) by displaying the isotherm of the chosen ablation needle. It allows the visualization of multiple needles by entering their thermal characteristics, and the assessment of their combined impact in the ablation zone.

A virtual ablation needle with its thermal characteristics is displayed on an 3 dimensional XperCT volume or previously acquired CT or MR data to verify optimal positioning of the needle and obtain total tumor coverage.

The thermal characteristics of each needle consist of the width, breadth and front of its ablation zones.

Per needle up to three ablation zones of different isotherms can be defined. XperGuide Ablation allows to plan and store up to 60 different types of thermal needle characteristics simultaneously.

All thermal characteristics can be stored and transferred to other Allura systems.

After the needle planning is performed, 2D fluoroscopy overlaid on the 3D volume, allows real time needle guidance along the planned trajectory on XperCT, MR and CT dataset.

During live needle guidance is possible to adjust the ablation transparency and modify the previous plan.

After the needle(s) are positioned, it's possible to control the effective ablation target with the previous plan.

Clinical Education Program for XperGuide Ablation

Philips Education Specialists will provide sixteen (16) hours of 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: 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.

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

4	****NCVB868**	**CX50 Video and UI coupling**	**1**		

The CX50 Integrated Ultrasound feature has been designed to easily and efficiently integrate ultrasound into the interventional suite.

Patient data:
Allura Xper patient information automatically transfers to the CX50
X-Ray and ultrasound patient studies may be configured with unique or identical study IDs to easily store and locate studies in DICOM
Image display:
The CX50 video output displays on the exam room LCD monitor
Integrated controls:
The Allura Xper Tableside Module remotely controls specific ultrasound modes and functions, including:
Modes: 2D, Color Doppler, Color Power Angio (CPA), Clinical presets
Functions: Zoom, Focus, Depth, Gain, iSCAN one-button optimization, Freeze, Acquire, Caliper, Replay, 2D Sector Width, Color Region of Interest, Biopsy Angles
Mouse interaction: remotely control the CX50 at the tableside using a mouse and tablet

5	****NCVC132**	**EchoNavigator R1**	**1**		

Structural heart procedures often rely on X-ray imaging to visualize the devices, while simultaneously relying on TEE Echo imaging of soft tissue and anatomical structures. EchoNavigator is a real time imaging modality that supports structural heart procedures by fusing both live X-ray and live echo in an interactive, intuitive and procedurally relevant way.

The EchoNavigator is based on a real time platform that combines the 3D TEE Echo and X-ray. It provides two visual outputs, one for the control room and one for the examination room. A mouse and mouse tablet (with attachment to table) is included to operate the EchoNavigator functionality from the table side. A dedicated color 24" wide screen LCD display for the control room is included. A FlexVision XL display solution is required for the examination room. EchoNavigator includes an Interventional Echo Link. The Interventional Echo Link provides a high speed 2D and Live 3D digital connection based on high bandwidth Ethernet network adapter with PCI express bus interface.
Features EchoNavigator:
To facilitate the interpretation of Echo images, EchoNavigator allows for multiple user-defined live views (renderings) of Echo data, showing relevant anatomical structures from different angles simultaneously in real time.

The image orientation of a selected Echo view can be automatically synchronized with the X-ray image, which defines in absolute terms the spatial relation between X-ray and Echo images. This spatial relation remains intact with 3D Follow C-arc. Follow C-arc synchronizes the Echo image

orientation with the X-ray projection, automatically adjusting the viewpoint as the gantry is repositioned. 3D follow C-arc for EchoNavigator is included.

To further help the understanding of the two different images, EchoNavigator projects the ultrasound field of view (Ultrasound cone) as an outline into the X-ray view.

Multiple markings can be placed soft tissue anatomical structures in the Echo image and these marking points automatically appear in the X-ray to provide context and help guidance.

To support the workflow and the communication between the X-ray and Echo-operator, the user can interrogate the relevant anatomical structures in the Echo data from table side.
Requires:

- EchoNavigator compatible Echo system, probes, and licenses/software
- EchoNavigator compatible Allura system, hardware, and licenses/software
- FlexVision XL display solution

IXR EchoNavigator Imaging Systems OnSite Education:

Philips Imaging Systems Clinical Education Specialist will provide eight (8) hours of education for up to four (4) students, selected by customer, including technologists from weekend/night shifts as necessary.   CEU credits are not available for this portion of training.   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.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref #819-20121213

2 DAY USCE ENT L3D TEE w/trav

2 Day Purchased TEE University with Travel - A variety of Live 3D TEE University course offerings are available to meet your educational needs. Live 3D TEE provides cardiologists, anesthesiologists, and cardiac surgeons novel and exiting realistic views to aid in patient care. The 2 Day PUR TEE University Tuition includes both the tuition and the corresponding travel package.

Due to travel and scheduling requirements, a twenty-one (21) day notification of cancellation is required or training / education entitlements will be forfeited. Curriculum is subject to change without notice.

Travel & Accommodations for one (1) registered attendee. Includes one (1) participant's airfare from a North American customer location to a Philips North America Ultrasound Clinical Education training location with modest lodging, ground transportation and meal expenses for up to 3 days. Breakfast/dinner are provided by the hotel and lunch/breaks are catered by Philips Healthcare. All other expenses will be the responsibility of the attendee (ie. Baggage fees, meals while traveling, transportation to and from customer's home airport). Details are provided during the scheduling process.

1 DAY USCE ENT CES ONSITE

100247 Allura Xper FD20 OR Table

1 Day On-Site CES – Ultrasound training designed specifically to meet the customers' needs; one business day (up to 8 consecutive hours) with one of our Philips Clinical Education Specialists. Education is provided Monday-Friday during normal business hours.

*Note: Philips Healthcare personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. The training sessions should be attended by Ultrasound Sonographers as identified by the department director. Site must be patient-ready.

2 DAY USCE ENT 400lvl w/trav

2 Day 400 Level Tuition Only - Use only for a two-day level 400 Ultrasound Clinical Education course. Travel and lodging included. NOTE: A twenty-one (21) day notification of cancellation is required or education will be forfeited. Curriculum is subject to change without notice.

6	**FCV0629	Addl sets of documentation	1		

 Set of black and white copies of all documents, comprising (if applicable):
- User manuals
- Service manuals
- System manuals
- Test results

7	**FCV0587	Xper Live/Ref Slaving	4		

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

8	**NCVA089	RIS / CIS DICOM interface	1		

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 ortosearch fora 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:

100247 Allura Xper FD20 OR Table					
Line #	Part #	Description	Qty	Each	Price

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
- 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 withDICOM Work List Management and Modality Performed Procedure Step.

| 9 | **NCVA088 | Standard Line Rate Video Output | 1 | | |

This interface provides image output to standard line rate video peripherals, such as VCRs or paper printers. This option also comprises automatic start and stop of a VCR, synchronous to the generation of X-ray (fluoroscopy and exposures).

| 10 | **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).

11   **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.

12   **NCVB879   Aut Pos Contr Xper sys & table   1

This Automatic Position Controller (APC) combines APC for Allura Xper FD10
and FD20 systems with table APC.
System APC provides two modes of operation:
Preset Position Sequence: the sequence of projections is
determined through personnalized 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 C-arm rotation angulation Flat
detector image format and SID.
Table APC
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.

13   **NCVA695   FD Rotational Angio   1

Rotational angiograpy provides real-time 3D impressions of complex vasculature and coronary artery tree. It acquires multiple projections with just one contrast injection via a fast rotational scan of the region of interest.

Rotational Angiograpy can be used during screening procedures to quickly determine the optimal projection for the study as the angle (rotation/angulation) of the projection is indicated on each image.

Compared with traditional angiography, Rotational Angiography can save considerable time, dose and contrast, while providing image detail required for diagnostic and therapeutic decisions.

A rotational scan is possible both with the Allura Xper systems in the side position (ceiling mounted systems) and in the head position, providing the flexibility to perform procedures virtually from head to toe.

C-arm in side position:

- Max. rotation Speed: 30 degrees/s

- Max. rotation Angle: 180 degrees

C-arm in head position:

- Max. rotation Speed: 55 degrees/s
- Max. rotation Angle: 305 degrees

Max. Frame speeds are given by the framespeed specifications of the system configuration.

The speed and range of rotation are the highest available (see table). The very high speed allows using less contrast, whereas the very wide rotation range provides a complete evaluation of the anatomy.

A contrast run can be followed up with a mask run, to allow image/run subtraction.

The stand is designed for a very high mechanical stability. It offers precise positioning and high reproducibility, assuring you of high quality images and excellent subtraction studies.

Operation of Rotational Angiography is extremely easy. The procedure is selected, set up and executed virtually in a matter of seconds, supporting the highest patient throughput.

A set of dedicated acquisition programs is available on the Xper Module and can be selected at the touch of a button. The rotation end- and start-positions are easily selected. The procedure is controlled from the exposure hand- or footswitch.

14   **NCVA093   Physio Viewing   1

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.

15   **NCVA694   Subtracted Bolus Chase   1

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.

Subtracted Bolus Chase gives fast, accurate results for increased patient throughput and improved patient management. Automated exposure control and precise speed control assure a high quality images and excellent subtraction studies.

100247 Allura Xper FD20 OR Table					
Line #	Part #	Description	Qty	Each	Price

Comprising:

- automatic exposure control
- tabletop motordrive and hand-held speed controller (tableside)
- technique selection using Xper module, available both tableside and in control room (Xper FD20, FD20/10)

16   **NCVA258   CO2 View Trace Software   1

Software package which enables tracing (stacking) of images acquired with CO2 injections. This function can be used during postprocessing next to view trace of images acquired with iodine injection.

17   **NCVA693   FD Dual Fluoro   1

Dual Fluoro for Flat detector systems

The Dual Fluoroscopy mode allows digitally processed fluoroscopy in parallel with trace subtract fluoroscopy, providing a non subtracted reference fluoro image for complex interventions.

This option provides an additional fluoro channel in parallel to the default fluoro channel. The Dual fluoroscopy mode is selected via the Xper module.
The trace subtracted fluoro image will be displayed on the exam monitor, the non-subtracted fluoro image is displayed on the reference monitor.
In Dual Floro mode, The fluoroscopy image on the exam montitor can be zoomed digitally with a factor 2, providing a larger view of the region of interest for complex interventions. The fluoro zoom function is controlled via the Xper module.

18   **NCVA672   FD SmartMask   1

SmartMask simplifies roadmapping procedures by overlaying a selected reference image with fluoroscopy on the live monitor in the exam room.
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

19   **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

**20   **NCVA784   Ventricular Quant.Sw   1
                        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

Q

Line #	Part #	Description	Qty	Each	Price

- 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

21   **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

22   **NCVA786   Vascular Quant.Sw pkg(Xper)   1

Functions:

- vessel diameter / stenotic index
- automated vessel analysis
- 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.

		100247 Allura Xper FD20 OR Table			
Line #	**Part #**	**Description**	**Qty**	**Each**	**Price**

Compatible with:

- Allura Xper FD10 Rel 3 and FD10/10 Rel 2 onwards
- Allura Xper FD20 Rel 2 and FD20/10 Rel 2 onwards
- Allura CV20 R1 onwards

23 ****NCVA101** **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

24 ****NCVB618** **HeartNavigator R1** **1**

Performing a structural heart procedure can be a breath-taking and tense intervention. HeartNavigator Release 1 provides support in planning of the procedure and additional live image guidance during the procedure. Previously acquired DICOM cardiac CT-datasets can be used as input. The CT-dataset can be presented in 3D and overlaid with the live-fluoroscopy to provide 3D real time insight during the procedure.
Planning:
DICOM Cardiac CT dataset can be used for the determination of the optimal intervention strategy. Optimal view planes for the X-ray device can be programmed with CT data. Furthermore, HeartNavigator Rel.1 is able to automatically segment anatomical structures, landmarks and planes out of DICOM cardiac CT-datasets. Different tools are available to help the user with the planning:

- Different anatomical visualization tools can be selected to visualize the desired anatomical structures
- Different anatomical landmark points are available to help the user to better understand the orientation and positioning of devices
- Different sizes of virtual devices which can be selected and projected on the CT data to give a reference on how the device would fit the patient

Image Acquisition en Procedure Execution:
During live image guidance HeartNavigator can be fully operated from table side using the XperModule. The user can overlay the acquired images on the 3D reconstruction of HeartNavigator.
The bidirectional link between the X-ray system and HeartNavigator allows the user to select the optimal stand position for the procedure in two ways. 3D Automatic Position Control allows the gantry to automatically move to the projection shown on the HeartNavigator monitor. 3D Follow C-arc allows the overlay to remain in sync with the 2D projection, automatically adjusting the viewpoint as the gantry is repositioned. Different visualization options are available like 3D volume and vessel outline to select as overlay.

Clinical Education for Heart Navigator:

iXR Heart Navigator OnSite Education: Philips Education specialist will provide sixteen (16) hours of education for up to (4) students selected by the customer . The Physicians performing the procedures are required to be part of the training session. CEU credits may be available for each participant that meet 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 the equipment during the educations sessions except to demonstrate proper equipment operation.

iXR Heart Navigator OnSite Live Case Follow Up Education: Philips Education Specialist will provide twenty -four (24) hours of education for Physicians and staff for live case use of the Heart Navigator software. This will be a follow up visit to the initial training of the Heart Navigator software. It is required that Live Valve implantation studies be performed during this education session. No CEU credits will be available for this session. 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 the equipment during the educations sessions except to demonstrate proper equipment operation.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref # 694698-20110915

Physician Taught HeartNavigator Workshop

This physician taught and hands-on workshop provides instruction and practice using HeartNavigator. It also covers the technical aspects and benefits of using overlay on fluoroscopy for live guidance purposes.

You will get hours of hands-on practice, working with your own workstation in a small group setting and you will discuss best practices with other participants to gain new insights and avoid common pitfalls.

The 12 hour/1.5 day workshop is located at The Center of Advanced Medical Learning and Simulation (CAMLS) in Tampa, Florida. It is in conjunction with Tampa General Hospital.

This package includes tuition for one clinician and one X-ray tech to attend this workshop. Travel packages and additional attendee packages can be purchased separately.

Line #	Part #	Description	Qty	Each	Price
25	****NCVB171**	**3D-RA R.6**	**1**		

Allura 3D-RA assists physicians in decision making for treatment strategy in endovascular procedures, neuro or vascular surgery or even radiotherapy. Allura 3D-RA reduces the number of DSA acquisitions and fluoroscopy time needed to perform an examination. This means less X-Ray dose for the patient and the medical staff and a reduced quantity of dye, leading to reduced procedure costs. Allura 3D-RA provides a unique assessment after treatment due to the use of non-subtracted images that allows to shows devices stents, coils, clips and provide the optimal stand projection for endovascular treatment.

Allura 3D-RA provides a wide range of communication facilities to export 3D images.

1 Image Acquisition

- Image acquisition is performed with the Rotational Angiography feature of the Allura Xper FD series with the flexibility to position the C-arm in either head or side position.
- C-arm in Head position: the Rotational Angiography run is performed over a scan range of 240 degrees with a rotation speed up to 55 degrees/sec.
- C-arm in Side position: the Rotational Angiography run is performed over a scan range of 180 degrees with a rotation speed up to 30 degrees/sec.

2 3D Vessel Reconstruction

The rotational run is automatically transferred and displayed as a 3D vessel model: with the Real-Time digital link (option) 120 images are reconstructed into a 3 dimensional model within seconds. Additional reconstructions, using the Reconstructive Zooming Technique, can be performed as well.

3 Workflow:

- Allura 3D-RA in combination with the Allura Xper FD series will provide an optimal workflow via the following workflow enhancers:
Complete automated 3D-RA process from 3D acquisition to 3D Viewing: no user interaction needed.
- 3D at Xper Module (option); With the Xper module the physician has all required 3D functionality at tableside. At the touch screen module functionality like rotating, panning, zooming, AVA, virtual stenting, 3D-APC and 3D Follow C-arc can be performed. With the mouse tablet all other functios can e performed so that there is is no need for the Physician to leave the examination room.
- 3D Automatic Position Control (3D-APC); When the optimal working position has been choosen via the Allura 3D-RA interventional tool, the C-arc will automatically steer to this position.
- 3D Follow C-arc; When the position of the C-arc (not using any X-ray) is changed, the 3D volume will automatically follow the position of the C-arc. This means the position of the C-arc (and therefore the 2D projection) and the 3D volume are always aligned. As last seen; when the user leaves the patient in the model and later selects that patient again, the Allura 3D-RA interventional tool will return to the image last used by the user.
- Mouse over: When moving the mouse cursor over a button the mouse over text will show up to explain the function of that specific button.

4 Calibration

Allura 3D-RA calibrations are performed by Philips Healthcare Customer Support. Allura 3D-RA calibration data are stable over at least 6 months time.

5 Viewing

A Real Time user interface is available with 3D-RA, providing 3D object viewing in any space direction. A graphical display of (C-arm) stand position including

- angulation/rotation for any projection.
- Philips' CRM (Contrast Resolution Management) Technology for a considerable increase in contrast resolution in all volumes.
Various Image Rendering possibilities: Volume/Surface Rendering, MIP, Endoscopy, SUM (pseudo x-ray image) Gradient rendering; the possibility to display the vessel structure transparently.
- Cut-plane function to get a precise insight of the shape of the pathology
- Orthoviewer providing a multi-planar visualization of objects using the different Image Rendering possibilities.
- MPR (Multi-Planar Reformatting): enables visualization of the volume in all three standard projections (coronal, sagital and axial) Especially useful for optimal viewing of spine procedures (e.g.Vertebroplasty)
- SpineView: special acquisition protocol for optimal viewing of the spine, especially osteoporotic vertebrae

CalciView: allows visualization of Hyper dense plaque in 3D, separately or in relation to the lumen.

- 5 different distance measurements calculated in the same volume, including "Quick measurement" feature
- Volume calculation
  - Automated Vessel Analysis (AVA), provides information on vessel segment diameter, area and length with only three mouse-clicks. Endoscopic and cross sectional views are available.
- Computer Assisted Aneurysm Analysis (CAAA), providing information on Aneurysms, like volume, neck size etc..
- Catheter tip shape simulation, providing information on how to shape the catheter tip.
- Virtual stenting; Ability to simulate a stent placement in a selected vessel segment for proper stent sizing. All relevant data of the simulated stent are displayed
- Annotation: text can be added to a volume to capture comments.
- Interpolative Zoom
- Reconstructive Zooming Technique, 2 additional user defined reconstructions focused on the Volume Of Interest (VOI) using different cube size and voxel resolution.
- Subtraction of reconstructed volumes, allowing to visualize vessels without embolization devices (stents, coils, clips,..) to assess the outcomes of treatment
- Automatic Voxelshift: compensates for movement when rendering subtracted or superimposed volumes
- Set the grey values WW/WL
- Store/Recall of user defined projections.

6 Archiving

Transfer to:

- Optional Hard Copy unit (DICOM Print)
- Any optional DICOM compatible device (e.g. PACS/ViewForum/Xcelera), supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D
- Any PC in a standard PC compatible format (JPEG,AVI)
- One or multiple DVD's, CD-ROM(s) for easy archiving
- Store a subset of exportable objects (snapshots and AVI Movies) to a USB removable memory device.

Clinical Education Program for 3DRA
CV 3DRA Handover OnSite Education:
Philips Education Specialists will provide sixteen (16) hours of 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: 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. Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 222-100615

The interventional tools hardware is the computer that enables the 3D interventional tools, it allows to import and view DICOM compatible data from other imaging modalities. The interventional Hardware comprises at least a Harddisk containing operating system and application software.

27   ****NCVA590**   **Real time image link**   **1**

Real Time digital image link to an off-line Allura Interventional Hardware station. This applies on the applications 3D-RA, StentBoost and 3D-CA on the Interventional Hardware. This dedicated digital link sends raw or processed image data (depending on the application) real time during monoplane exposures to the connected Interventional Hardware station, to allow instant results of the applicable reconstruction after the exposure run.

In biplane systems, this digital link is available for the frontal channel only.

28   ****NCVA116**   **3D RA Control for Xper Module**   **1**

Table Side Module functionality for Allura Xper FD20 used with Integris 3D-RA Release 4.2.
 For further improvement of interventional procedures efficiency the following workflow enhancers are made available in the examination room: With the Xper touchscreen module the physician has all 3D functionality needed at tableside. Functionality like rotating panning zooming AVA Virtual stinting 3 and 3D Follow C-arc can be perfomed. No need for the Physician to leave the examination room. 3D Automatic Position Control (3D-APC); when the optimal working position has been chosen via the Integris 3D-RA interventional tool the C-arc will automatically steer to this position.3D Follow C-arc: When the position of the C-arc (not using any X-ray) is changed the 3D volume will automatically follow the position of the C-arc. This means the position of the C-arc (and therefore the 2D projection) and the 3D volume are always aligned.

29   ****NCVB168**   **3D Roadmap**   **1**

3D Roadmap extends the capabilities of the integrated 3D product by providing a sustainable 3D roadmap to support interventional procedures. The 3D Roadmap option matches the real-time 2D fluoroscopy images with the 3D-RA reconstruction of the vessel tree. It provides a 3D real time insight of the advancement of the guide wire, catheter and coils through complex vessel structures. 3D roadmap has automatic motion compensation for the neuro runs. When the automatic motion compensation function is active, this functionality will constantly correct the motion artifacts which can be present in the 3D Roadmap image.

Image Acquisition
The 3D Roadmap is based on the visualization of the vessel tree out of 3D-RA The 3D Roadmap is activated with one button touch at tableside (Xper Module). Select the 3D Roadmap function on the touch screen module, activate fluoroscopy and the 3D Roadmap is activated. The "live" 2D fluoroscopy image is overlaid with the 3D volume of the vessel tree and is automatically displayed on the 3D roadmap monitor in both the examination and control room.

Intuitive, fully controlled from tableside:
The bidirectional link between the X-ray system and the 3D Roadmap allows the user to select the optimal stand position for the procedure in two ways. 3D Automatic Position Control allows the gantry to automatically move to the best interventional projection as shown on the 3D Roadmap monitor. 3D Follow C-arc allows the 3D Roadmap to remain in sync with the 2D projection, automatically adjusting viewpoint as the gantry is repositioned

- Landmarking to adjust the intensity of the anatomical reference surrounding the vessels;
- 3D blending to fade in/out the 3D view;
- WW/WL settings to control the contrast/brightness;
- Store and review runs for reporting and archive purposes;
- Store snapshots and movies.

Line #	Part #	Description	Qty	Each	Price

3D Roadmaps can be sent to:
Any optional DICOM compatible device (e.g. PACS/ViewForum/Xcelera), supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D
Any PC in a standard PC compatible format (JPEG,AVI)

And stored/archieved on
A PACS systems as DICOM Secondary Capture images or movies
USB removable memory device
One or multiple DVD's, CD-ROM(s) for easy archiving
Hard copy via the (DICOM Print) protocol

30   **NCVB167   MR/CT Roadmap   1

MR/CT Roadmap extends the capabilities of the integrated 3D product by providing a sustainable 3D roadmap based on previous acquired CT or MR scans to support interventional procedures. The MR/CT Roadmap option matches the real-time 2D fluoroscopy images with the 3D volume of CT or MR.

The CT or MR data can visualize in either 3D (e.g vascular structure) or with 2D slice in the same orientation as the 2D fluoro image. It provides a 3D real time insight of the advancement of the guide wire, catheter and coils through complex vessel and anatomical structures

Image Acquisition
A previously acquired CT or MR scan can be imported into the system and matched with a low dose 3D-RA or XperCT scan The MR/CT Roadmap is activated with one button touch at tableside (Xper Module). Select the MR/CT Roadmap function on the touch screen module, activate fluoroscopy and the MR/CT Roadmap is activated. The "live" 2D fluoroscopy image is overlaid with the MR/CT volume presented in 2D or 3D and is automatically displayed on the roadmap monitor in both the examination and control room.
Intuitive, fully controlled from tableside:
The bidirectional link between the X-ray system and the MR/CT Roadmap allows the user to select the optimal stand position for the procedure in two ways. 3D Automatic Position Control allows the gantry to automatically move to the best interventional projection as shown on the MR/CT Roadmap monitor. 3D Follow C-arc allows the MR/CT Roadmap to remain in sync with the 2D projection, automatically adjusting viewpoint as the gantry is repositioned.
•   Easy 2 step registration of the MR/ CT volumes
•   Landmarking to adjust the intensity of the anatomical reference surrounding the vessels and tissue
•   2D and 3D blending to fade in/out the 2D or 3D view;
•   WW/WL settings to control the contrast/brightness;
•   Store and review runs for reporting and archive purposes;
•   Store snapshots and movies.

MR/CT Roadmaps can be sent to:
•   Any optional DICOM compatible device (e.g. PACS/ViewForum/Xcelera), supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D.
•   Any PC in a standard PC compatible format (JPEG,AVI).

And stored/archieved on
•   A PACS systems as DICOM Secondary Capture images or movies.
•   USB removable memory device.
•   One or multiple DVD's, CD-ROM(s) for easy archiving.
•   Hard copy via the (DICOM Print) protocol.

31   **NCVB950   2D Perfusion   1

2D Perfusion brings functional imaging in the interventional suite and therefore allows assessing tissues perfusion during the intervention. It is based on a digital subtraction angiography (DSA) and it calculates the transit time of the contrast trough the vessels, displaying it as a full color image.
2D Perfusion can be used for the identification of perfusion alterations in tissue in case of vascular pathologies or to verify perfusion behavior in case of tumors and AVM. It helps identifying the areas
which are at risk of being hypo-perfused (or hyper perfused) and it allows to compare side by side pre, peri, and post-procedural perfusion images to identify treatment end point and to verify procedure outcome.

2D perfusion allows to draw a region of interest (ROI) and to study the perfusion within the ROI thanks to the time density curve.
Once the ROI is selected, the time density curve is generated real time and the average value of the selected parameter is calculated and displayed.
When comparing pre and post intervention images, it's possible to draw a region of interest and it will be automatically drawn in the comparative image. It will also calculate the time density curve of both images, to easily evaluate pre and post intervention differences.

The functional parameters available are:

1. Mean Transit Time
2. Arrival Time
3. Time to Peak
4. Wash-in Rate
5. Width
6. Area Under Curve

The color legend indicates for which functional parameter each color represents in the displayed image.

- 2D Perfusion runs are acquired on a compatible with Allura Xper FD system release 7.2.3.3/ 7.2.5/ 7.6.3/ 7.8.1/ 7.7.1/ 8
- 2D Perfusion can run on Interventional Tools Hardware: Radisys 8 and DELL T5500. In field extensions, replacement hardware can be ordered.
- 2D Perfusion supports subtracted X-ray exposure runs acquired with a 2D Perfusion protocol. (While acquiring a run with the 2D Perfusion protocol, the subtracted run is shown on the X-ray modality screen.)
- 2D Perfusion supports runs acquired on the frontal channel or on the lateral channel.
- The 2D Perfusion protocol acquires up to 173 images at 3 frames per second.
- 2D Perfusion supports runs of 5 images or more
- Runs can be transferred to 2D Perfusion over the DICOM network or over the Real Time Image Link (option).
- 2D Perfusion provides different options for exploring the time-to-density curve, which describes the presence of contrast at a certain point in time.
- It allows to draw 2 different types of ROI: an elliptical ROI or to draw a freeform ROI. If you make changes to the ROI (elliptical ROI only), the curve in the analysis graph is updated automatically.
- In procedures where it's required to compare left and right hemispheres, you can draw a mirror line, and analyze the perfusion behaviors in the ROI between the hemisphere suspected to have a perfusion alteration, with the normo-perfused hemisphere.

- 2D Perfusion includes 3 new EPX's for Neuro, Abdominal and Peripheral examinations. 2D perfusion allows to select the frames where the presence of contrast is detected, in order to reduce the motion artifacts.

Clinical Education Program for 2D Perfusion

IXR 2D Perfusion OnSite Education: Philips Education Specialists will provide sixteen (16) hours of 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: 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.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref # 6034-20131218

32   **NCVB947   XL screen video-share slaving   1

The XL screen video-share interface enables to share all information being presented on the large 56-inch screen in the Examination Room.

The XL screen video-share interface provides two, simultaneously available, video outputs:

- A full resolution video-output (Quad HD = 3840*2160 ; 8 MegaPixel)
- A downscaled resolution video-output (HD = 1920*1080 ; 2 MegaPixel).

The full resolution 8MP video-output is compatible with the following Dual DVI 3rd party monitors:

- Barco 56-inch: CML5682W4
- Eizo 56-inch: Radiforce LS560W
- Eizo 60-inch: Radiforce LX600W

The downscaled 2MP resolution video-output can be used to connect to a (3rd party) HD display or to a 3rd party recording/streaming/reviewing solution.

Note: The information provided at the 3rd party monitors (2 & 8MP) video output cannot be used for diagnostic purposes.

33   **NCVB775   FlexV XL xperHD for 3rd p.   1
                            MCS

FlexVision XL with XperHD

 FlexVision XL for Allura Xper FD & AlluraClarity systems with large 56-inch high resolution color LCD in the Exam Room. 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.
- 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.

Line #	Part #	Description	Qty	Each	Price

- Snapshot
  - o 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 Room as separate DICOM Secondary Capture images. The FlexVision XL can be mounted on a 3 party MCS. This gives the possibility to be more flexible in the positioning of the FlexVision XL in the exam room. This is often requested in Hybrid OR's

34   ****NCVB591**   **2ND REF for FlexVision XL**   **1**

2nd REF for FlexVision XL is optional on FlexVision XL. Second Ref images will be displayed on the large screen monitor.

35   ****989801220202**   **CORE Precision Guided Therapy System**   **1**

CORE Precision Guided Therapy System

CORE CPU, Operator's Manual, Power Transformer, Cable Pre-Install Kit, Connection Box, two (2) Standard Controller and one (1) bedrail mount, 19"NEC Monitor Kit, Phased Array PIM Body, FFR functionality, DICOM Network Connection, ChromaFlo Functionality.

-Includes VH IVUS End User License Agreement

The customer agrees that use of the VH IVUS Software is subject to the terms of the End User License Agreement. A copy of the End User License Agreement is also available from your VOLCANO representative or online at www.volcanocorp.com/products/pdf-files/sofware-support-vh-ivus.pdf

-Includes Three (3) Year IVUS Software Support Agreement

This signed Agreement provides for the purchase of the IVUS Software Support Agreement (SSA), which provides for unspecified IVUS software revisions released during for a three (3) year term (should any be commercially released) at no additional cost. In the absence of an SSA, future software revision releases will be made available at additional cost to be determined upon commercial availability.

36   ****989801220209**   **CORE Revolution Option**   **1**

CORE Revolution Option
Includes SpinVision PIMr and PIM Cable

37   ****989801220210**   **CORE™ Printer Option**   **1**

CORE Printer Option

38   ****989801225022**   **Medrad Mark 7 Arterion Pedestal**   **1**

The Arterion Mark 7 Pedestal contrast medium injector can be positioned anywhere at the patient positioning table on a mobile unit, for direct operation of all functions in the examination room.

The injector system includes:
- A mobile pedestal stand with electronics unit and a connection cable to the manual release.
- A support arm with injector head and a control lever for moving the injector head.
- A user control console with large touch screen and corresponding additional monitoring display on the injector head.

Functions
Pressure limitation:
- for 150 ml syringes 689 to 8273 kPa,
corresponds to 100 to 1200 psi. .

Flow rates for 150 ml syringes:
- 0.1 to 45 ml/s in increments of 0.1 ml/s
- 0.1 to 59.9 ml/min in increments of 0.1 ml/min
- rise/fall: 0 to 9.9 s in increments of 0.1 seconds

Release delay for injection or radiation:
- 0 to 99.9 s in increments of 0.1 s.

Adjustable volume for 150 ml syringes:
- 1 ml to the max. syringe capacity in increments of 1 ml.

Fill rate:
- Variable syringe filling speed 1-20ml/s.

Injection protocols:
- Up to 40 injection protocols possible.

Parameters currently displayed on the touch screen display and on the head display:
- Injection speed
- Injection volume
- Remaining volume
- Injection duration
- Applied pressure

Contrast medium heating:
- Nominal 35°C (95°F)+-5°C (9°F)

Injection data memory
- Up to 50 injection data items stored

Included in the scope of delivery
- Injector standard configuration 150 ml
- Philips interface cable
- Operator Manual
- Service manual (English).

Power supply
100-240 VAC 50/60 Hz 1000VA.

Line #	Part #	Description	Qty	Each	Price
39	**989801292098	**IXR Additional Training 16 Hours OnSite**	2		

Clinical Education Specialists will provide sixteen (16) 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.

Line #	Part #	Description	Qty	Each	Price
40	**989801292102	**CV Full Travel Pkg OffSite**	2		

Line #	Part #	Description	Qty	Each	Price

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).

41   **989801299678   Airfare to Cleveland for   1
**   Biomed Training**

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.

42   **989801299679   Food Transpt Lodging for   22
**   Cleveland Biomed Training**

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.

43   **989801299729   XD3970ALLURAFD7.6PART1C   1
**   TC9**

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:

		100247 Allura Xper FD20 OR Table			
Line #	**Part #**	**Description**	**Qty**	**Each**	**Price**

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

100247 Allura Xper FD20 OR Table					
Line #	Part #	Description	Qty	Each	Price

44   ****989801299743**   **XD3974ALLURAXPERREL7.6P**   **1**
                                  ART2CTC9

Course Number: XD3974
System Codes: 722010, 722011, 722012, 722013
Course Title: Allura Xper Rel 7.6 Part 2
Course Length: 9 days
Delivery Method(s): Instructor-Led
Modality: iXR
Location: PHC, SLC
Target Audience: Service Engineers.

DESCRIPTION:
This course is a follow up on the Allura Xper Part 1 course and is intended for modality Engineers that specialize in Cardio Vascular.

3 months Field experience on Allura Xper systems is strongly recommended before attending this part 2 course, this means the engineer has done some installation, pm- and cm visits.

In part 2 the customer support engineer is trained to a technical level which will enable him/her to perform setting to work and extended corrective maintenance on Allura Xper systems, according the customer support philosophy.

Not covered are the Mechanical Installation and Cabling of the Allura Xper System.
These topics are covered in the e-learning: Allura Xper Mechanical Installation.

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:
•   XD3866 or XD3966 or XD3970
COURSE OBJECTIVES:
For Allura Xper systems, the engineer will learn how to:

Perform the setting to work, including:
Setting to work of Dicom Store and Storage Commit from Allura towards an Xcelera PACS as well as Setting To Work of the CWIS option towards an Xcelera and/or Hemodynamic system Xper Flex Cardio.
Customizing of common parameters of the Xper database.
Distinguish technical problems from incorrect operating.
Perform extended corrective maintenance; with help of analytical trouble shooting, service documentation and service tools.
Perform a Dicom traffic capture file, with help of the DVTK program (Dicom Network Analyzer), as part of the connectivity Fault Isolation Procedure for analyzing and if needed sending to helpdesk Image quality faultfinding using lower level IQ measurements.

45   **SP059B**   **Universal Power Supply**   **1**

100247 Allura Xper FD20 OR Table

Line #	Part #	Description	Qty	Each	Price
		25 kVA Fluoro Only			
46	**SP059D**	**System Admin**	**1**		
		Video Splitters			